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The Roads of New York Central Park.

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XI.

GUTTERS.

SEVERAL kinds of gutters have been tried for the Park roads. The first kind was the usual form adopted for city streets—that of flat stones for the bottom of the gutter with a strong curb-stone set at the side, with a slight inclination outward, (FIG. 1 of the accompanying drawing). This form was adopted for the first sample of road that was constructed. The stones were of Hudson River "blue-stone," such as are generally used in the city of New York for gutters and for the flagging of sidewalks. The bottom stones of the gutter were about sixteen inches wide and four inches thick, and in pieces from four to six feet long. The curbs were twenty inches deep, five inches thick, and of similar lengths to the bottom stones, the upper edge being cut to a bevel, so that when the stones were set, inclini g slightly outward from the road, the 'op surface of the curb-stones conformed to a horizontal line transversely of the road. The curb-stones were set first, and were filled around with coarse gravel or broken stones. The bottom stones were then laid on a well-rammed bed of the same material, the upper surface of the stones having an inclination or pitch toward the curb of about two inches in the breadth of fifteen or sixteen inches. Broken stones or coarse gravel was then well rammed along the inner edge of the stones, to hold them firmly in their places, and the road material was subsequently joined up to them flush with their upper surface. The curb-stones had a height of six to eight inches above the gutter-stones, and the rear was filled in with earth, and a sward was formed even with, or rounded a little above, the tops of the stones.

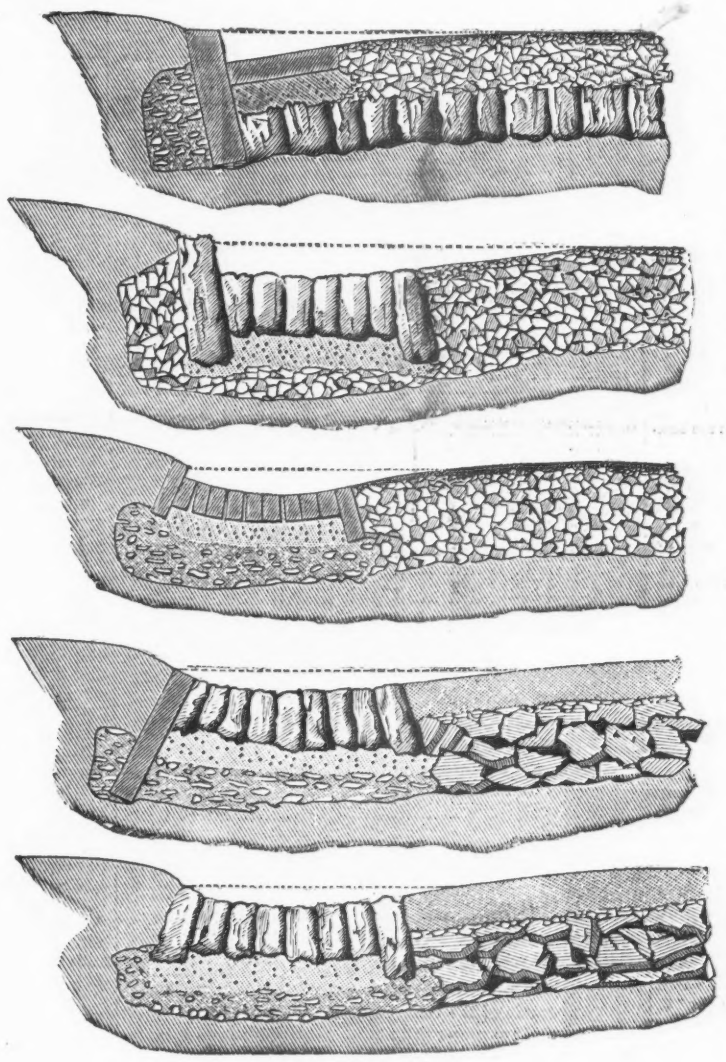

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

ROAD GUTTERS.

This kind of gutter was the first to be brought into use, and has stood very well during a service of about seven years; it has been but little disturbed by frost, and shows no material effects of wear. A little unevenness of the curb-stones has been caused by the action of frost, showing that a greater depth of the stones would be desirable. The pitch of the gutter-stones was made to correspond with, and form a continuation of, the sloping surface of the roadway, so that carriage wheels pass freely and easily from the roadway into the gutter and close along the curb, without the inconvenience usually attending the driving into gutters composed of cobble or quarry stones.

The curb forms a very desirable barrier against the encroachment of carriage wheels upon the grass borders, by careless driving, or by any ordinary chance, during a crowded state of the road, and it also gives a well-marked outline to the road. The ease of driving into and occupying the gutters as a part of the road, as occasion requires, gives to this form of gutter a practical advantage, as compared with the ordinary paved gutter, that is equivalent to an increased width of the road of two or three feet. This is a feature that should not be lost sight of in estimating the cost of the gutter, as compared with the cost of other kinds, as it may be regarded in the light of a saving of the expense of a portion of the width of the roadway, equal to about the width of one gutter.

The next kind of gutter that was tried was similar in form to the first, having an elevated curb; but it was composed of stones that were obtained chiefly on the Park, and at less expense (FIG. 2). The curbs were formed of stones selected from the rock excavations, and roughly dressed to give them a tolerable uniformity of shape, and to fit them evenly together when set. They were mostly long-shaped stones and were set about two feet deep in the ground, and filled around in the same manner as the blue-stone curbs, with gravel or broken stones to guard them against frost.

The gutter-stones were of cobble or field-stones. These were set so as to give a concave form to the upper surface, with a depression in the middle of two or three inches, the width of the gutter being two feet. The stones were generally from four to six inches in breadth, and of an equal or greater depth, deeper ones being selected to form the inner edge of the gutter next to the roadway, and only such were used as were hard and sound. All were set compactly together, on a filling of gravel, quarry chips, or broken stones, and were well rammed, and the insterstices afterwards filled with gravel or coarse clean sand.

The gutter formed in this way was similar, but superior to, an ordinary cobble-stone pavement, as pains were taken in the selection of the stones, and in placing their best or flattest surfaces uppermost. The work has proved very durable, and has a firm, substantial look, and remains apparently undisturbed by use, and as true as when first put down. The roughness of the stones is not felt when driving over them to the same extent as in the case of gutters composed of quarry-stones. The curb-stones, though roughly shaped and fitted, are strong and serviceable, and, except their roughness as a fender against carriage-wheels, answer the purpose as well as the more expensive blue-stone curbs.

In some positions, where a high finish is required, the rustic outline they give to a road (which is in strong contrast with that of the dressed blue-stone curbs) would not be desirable; but ordinarily this is a feature that is quite in harmony with the surroundings of rural roads.

After observing these gutters during the period that they have been in use, and comparing them with other forms subsequently constructed, the original conclusion in regard to them is very much strengthened, that they are well adapted to park roads. A strong well-defined curb, rising a suitable height above the bed of the gutter, not only marks with necessary clearness the boundaries of a road, and defines its curves and sinuosities, but is a reasonable safeguard against negligent driving on a road that is liable to be crowded, and is a protection to grass borders and shrubbery, as well as to pedestrians, where the walks and roads run, as on a considerable portion of the Central Park, parallel and in close proximity with each other. The curb is also of advantage in giving ample capacity to the gutter for discharging water in an emergency, and preventing it from breaking over the borders of the road.

The "blue-stone" gutter, with accurately dressed curb, and squared, close joints, is expensive, and is more appropriate for a road where, from position and special adaptation, a highly finished and formal outline, or a barrier of more than ordinary security, are required, than for a road for general park purposes occupying a great variety of ground.

The gutter with rustic curb is not open to the objection of expense, as it is one of the cheapest kinds that has been constructed; it has also proved, after several years service, to be at least equally durable with other kinds. A slight addition to the first cost of the gutter would give to the curb-stones more evenness of surface and closer joints, which would be desirable to perfect them as fenders to carriage wheels; it would also add to their stability, and prevent the intrusion of grass in the joints. With care in selecting the stones, broader and more regular shaped ones can generally be obtained from stone quarries, than such as were used in making the sample that has been described.

With these improvements, and, if practicable, the addition of a few inches to the depth of the curb-stones (making them not less than two and a half feet), this kind of gutter would combine all the qualities and features needed for practical purposes, and at a cost not exceeding that of any other kind equally serviceable. The foregoing gutters, with elevated curbs, together with the one next described, were made in connection with that portion of the Park carriage road lying east of the Mall, and extending northwardly past the Casino, and turning out to the Seventy-second street entrance on Fifth avenue.

The next kind of gutter tried was composed entirely of brick (FIG. 3.) It had the same general form and dimensions (except the curb) as the cobble-stone gutter. Hard, thoroughly burnt, well-shaped bricks were used, the bricks being set on edge lengthwise of the gutter, except those in the exterior courses, which were set on end in the form of ties or headers in a wall. The bricks were laid so as to break joints with each other, and closely together, in the form of an inverted arch corresponding with a prescribed pattern. The outer course of bricks was raised three inches above the surface of the gutter, to add to the capacity of the gutter, and to serve as a partial curb. This arrangement of the bricks necessitated the pitching of their tops inward, in consequence of the concave form of the gutter, instead of giving them the usual inclination of a curb in the opposite direction. This was not a favorable form to serve as a fender to carriage wheels, but it was a difficulty that was unavoidable in the use of brick. Carriage wheels, in coming in contact with the overhanging corners of the bricks have a tendency to climb instead of sliding off, as in other cases, by which the bricks are occasionally chipped or broken. In other respects, this gutter has been successful, and wears well, resisting frost and keeping in shape very perfectly. The bricks were bedded on a filling of coarse gravel or quarry chips and rubble, and were afterwards settled by careful ramming. A light coating of sand was then spread over to fill up the joints.

Although this kind of gutter possesses strength and stability sufficient for the purpose of intended, yet it has an appearance, in contrast with the others, of weakness and inappropriateness as the defining boundary of a broad and substantial carriage road. A stronger and more decided curb is needed, and a general want of harmony and fitness is to prevail between the brickwork and other features and surroundings of the road.

The cost of this gutter was about the same as that of the cobble-stone gutter with rustic curb; it is not probable, however, that it will prove as enduring.

A modification of the cobble-stone gutter was next tried. This consisted merely of the substitution of a dressed blue-stone curb, (similar to that first described) in place of the rustic or quarry-stone curb. This gave a higher finish to the

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STATISTICAL ANNUAL REVIEW
OF THE
COAL TRADE OF THE UNITED STATES,
ANTHRACITE AND BITUMINOUS,
FOR 1869.

The Anthracite Market.

THE year eighteen hundred and sixty-nine may be regarded as one of more than usual prosperity to the Coal Trade, particularly when we consider the many drawbacks to which it was subject. In consequence of the mild winter of 1868, Our tables exhibited a surplus at the opening of trade of some 200,000 tons; besides this, there was a stock on hand of some 400,000 tons at the principal shipping points. This fact was not calculated to be of general benefit to the trade. Desiring to work off this surplus, and to prevent a further accumulation, the representatives of the transportation companies, at a meeting held early in the spring, endeavored to arrive at some plan to regulate the supply. Their action in this direction was influenced by the menacing attitude of the miners, who, fearful of the results of the surplus and accumulation, threatened to strike, unless some means could be adopted to insure them steady work at remunerative wages. The failure of the companies to adopt any plan was indirectly the cause of the formation among the miners of the Workingmen's Benevolent Association, intended to secure unity of action in the proposed strike throughout all the Anthracite districts. Early in May, the strik commenced, and was joined at once by all the miners, except those employed by two large companies, who were, however, compelled to follow suit a few weeks later. This strike lasted some seven weeks. At the end of a week's time, all miners, except the Delaware and Hudson Company, and Delaware, Lackawanna and Western Railroad Company, resumed work on the terms of the "basis," namely, $3.00 at Port Carbon and 5.00 at Elizabethport, with wages at $14 for miners, $12 for inside laborers, and $11 for outside laborers per week, and 5 per cent. advance on every 25 cents received at Port Carbon above $3 per ton; below which price "coal must not go, or they would suspend." It is, no doubt, well known to our readers that the two large companies named above positively refused to adopt the basis, or in any way consen to be governed by the miners; and some five weeks more elapsed before an amicable arrangement was concluded. This strike prevented the extraction of some 750,000 tons of coal. But this was not to be the only interruption to business. Early in the fall, a heavy storm crossed the coal regions, damaged the mines, canals, and railroads, and was the means of lessening the production some 4 0,000 tons. Of course, during this period, an excited market reached fabulous prices; and much profit was realized by dealers. At the same time, however, the trade was greatly influenc d by the continual pratings of the city press, which, not understanding the condition of affairs, persisted in misstating fa ts, greatly to the detriment of the business, causing purchasers to hold off. Business of all kinds during 1869 was more or less depressed. M nufactories were closed, and very little enterprise was shown in any branch of trade. The coal trade, of course, suffered in sympathy with the others.

The Scranton auction sales were a great source of complaint among dealers. We have often expressed our voices in regard to their sales, and hardly think it necessary to repeat them here. The trade generally knows that we are opposed to them. There are many reasons why coal should not be sold at auction, and as long as the Scranton Company sees fit to keep up their auction sales, so long will the trade be speculative and fluctuating. The company was unable to deliver coal from its shipping point for a period often amounting to three or four weeks after a sale, thus causing much extra expense to purchasers. This, of course, being discounted by dealers, caused the prices to fall to a low figure, which had a bad influence on the general market.

During the ruling of high prices, the transportation companies advanced their tolls and freights from time to time, as the advance in coal permitted. As some of our large corporations transport their own products the business was specially remunerative to them.

As usual, the transportation companies carry off the lion's share of the profits; but in spite of the evils and accidents we have narrated, the year must be considered, as we said at the outset, a remunerative one to dealers, for the simple reason that when coal was low they could not get it, and the public made the mistake of not buying what they had on hand, while, as the price increased, the demand became eager, and the sales larger.

Philadelphia and Boston were influenced by the above facts in the same manner as the New York market. We believe the business done at both points was satisfactory.

Messrs. DAY, HUDDLE & Co., our Boston correspondents, send the following interesting exhibit of that market:

"A noticeable feature in the returns is the large substitution of bituminous coal for anthracite, to a degree unprecedented, and wholly for steam purposes. The fact of this increase in the consumption of soft coal has been well known and recognized throughout the past year by the anthracite interest. They have felt, while carrying unassisted the burden of the labor question, and fighting single-handed the formidable organization of miners, that their trade was slipping away from them to enrich their more fortunate competitors.

The final result is not so bad as was anticipated. After all the advantages enjoyed this last year by the Cumberland mines, the displacement of hard coal in the Boston market is less than ten per cent. of the anthracite product of 1868. Among the causes of this state of things, may be ment oned, the drift of public opinion, which set in early in the season against the anth acite, as a heartless and arrogant monopoly, speculating in one of the great necessities of life.

The coming year will set this matter right, if the basis of wages can be satisfactorily arranged. Besides, the co-operative system, which has been the prime cause of the perturbations of 18 9, will in due time extend to the Cumberland District. This question of the day, the struggle between capital and labor, under which the northern counti s of Pennsylvania have been writhing for the last two years, must sooner or later penetrate the entire coal region; and wherever it goes will present the same aspect, and make the same inexorable demands—a basis of wages, with a sliding scale, rising or falling with the market price of coal for the week.

The presen stock of coal in Boston and vicinity, though sufficient for the requirements of the moment is not large. The excess over last year of all kinds was only 5,000 tons, while the natural annual increase, if reckoned only at five per cent., would be at least 40,000 tons. This increase is always taken into account by dealers in forecasting the prospective demands of the market. A deficiency is already perceptible in stove coal, and also in broken; the latter having been ordered short in the fall for the very reason that bituminous coals were taking its place. The quantity on hand in Boston and vicinity, in the sheds of each dealer, and the distribution of sizes was taken on the 1st of February last year, and also on the 1st of March. A very useful practice to commence the year with and we hope to see it continued."

Boston Coal Trade.

OFFICIAL RETURNS of Coal received at the Port of Boston during the year 1869, furnished by Messrs. Day, Huddle & Co., Boston., Mass.

	1868—TONS.	1869—TONS.		TONS.
Anthracite.....	681,272	615 932	Decline from 1868..	65,340
Cumberland.....	81,209	147 573	Advance over 1868..	66,364
Nova Scotia.....	92,639	96.684	do do ..	4.045
Totals....	855.120	860.189	Total advance.....	5,569

The total amount of Coal received at Providence, R. I., was in—

	TONS.		TONS.
1868	425.873		
1869	442,226	Advance over 1868..	16 353

The aggregate tonnage of the two largest distributing points in New England for the year—

	TONS.		TONS.
1868.....	1,280,993		
1869.....	1,302,915	Advance over 1868..	21,92-

The Boston *Shipping List* gives the following facts in regard to the Coal Trade of Boston for the year 1869. The coal trade has been marked by an unusually high range of prices. A combination among the miners early in the year, aided and promoted by the large coal companies, forced up the retail price of Anthracite to $10 per ton early in July, and from $10 @ $11 per ton have been the current rates since. These high figures, ruling at a time consumers usually purchase their winter supplies, prevented buyers from stocking up to any extent, and, in July, August, September and October, the most active months of the year, the business was very light. The advance, in fact, was looked upon as unreasonable and uncalled for, so that consumers purchased as sparingly as possible, and this holding back had considerable influence on prices, demoralizing the market to such an extent that it has scarcely yet recovered. The receipts of the year show an increase of 21,536 tons from domestic and 6,568 tons from foreign ports over last year. The stock on hand is fair for the season, and it is believed that prices must soon recede. The highest and lowest prices of Anthracite and Provincial coal for ten years past have been as follows:

	Anthracite. Per Ton.	Sydney and Pictou. Per Ton.		Anthracite. Per Ton.	Sydney and Pictou. Per Ton.
1869	$7 50a11 00	$9 25a 9 00	1864.....	$11 00a16 00	$8 00a14 00
1868	7 00a12 00	7 50a 9 00	1863.....	9 00a12 00	6 00a 8 00
1867	7 50a10 00	7 25a 9 25	1862.....	5 00a 9 00	4 50a 8 00
1866	9 00a15 00	7 50a 9 50	1861.....	5 00a 6 50	4 00a 6 00
1865	8 75a17 00	6 25a18 00	1860.....	5 50a 6 00	4 40a 6 50

The imports of foreign and domestic coal at this port for ten years have been as follows:

FROM	FOREIGN. Tons.	DOMESTIC. Tons.	Total,		Tons.	Tons.
Great Britain....	14,185	.....		1868.....	103,901	742,481
Provinces.....	96,784	.....		1867.....	117 440	780.221
Philadelphia.....	.....	471 397		1866.....	159 380	676,376
Alexandria.....	.....	55,239		1865.....	204,225	538 977
Baltimore.....	.....	109,975		1864.....	188,786	516,666
Other places....	.....	156,406		1863.....	18 .445	580,921
				1862.....	157 285	477,588
				1861 ..	140,687	508 815
Total.....	110 469	764,017		1860.....	138,895	581,405

The following is the quantity of Anthracite Coal and Domestic and Foreign Bituminous Coal received at Boston for the years 1868 and 1869:

	1868.	1869.
Anthracite, tons.....	681 272	615 932
Cumberland, tons.....	81 209	148.070
Nova Scotia, tons.....	92 639	96.681
Total, tons.....	855 120	860,689

Philadelphia Coal Trade.

CONSUMPTION OF COAL IN PHILADELPHIA.—As near as we can ascertain, the consumption of coal in Philadelphia and vicinity in 1869, was as follows:

	Tons.
Received from Philadelphia and Reading Road.....	894,663
Schuylkill Navigation.....	205,185
North Penn. R. R., Lehigh (estimated).....	215,836
Lehigh via Delaware Division, (estimated).....	160,000
Anthracite.....	1,473,684
Cumberland and Broad Top, (estimated).....	300,000
Gas Coals, (estimated).....	140,000
Total consumption of Philadelphia.....	1,919,684

QUANTITY SENT TO PHILADELPHIA.

The following is the quantity of coal sent to Philadelphia by railroad and by canal in the following years:

YEARS.	RAILROAD.	CANAL.	TOTAL.
1855.....	342 311	286,087	628,398
1856.....	338,189	322,533	660,722
1857.....	320,327	387,479	707,806
1858.....	278,088	480,383	758,471
1859.....	286,701	512,670	799,461
1860.....	305,819	496,084	800,903
1861.....	273,475	474,965	747,440
1862.....	316,631	290,584	607,214
1863.....	388,352	236,563	625,915
1864.....	373,070	307,430	680,500
1865.....	380, 35	296 925	677 158
1866.....	475,189	421,525	896,714
1867.....	386,943	356,364	743,307
1868.....	697,277	255,767	952,044
1869.....	898,663	205,185	1,103,848

The following table exhibits the quantity of Anthracite coal mined and sent to market in 1869:

	TONS.
Philadelphia and Reading Railroad.....	3,648 928
Schuylkill Canal.....	694,879
Lehigh Valley Railroad.....	2,087,854
Lehigh Canal.....	6 6,144
Lehigh and Susquehanna Railroad.....	994,505
Scranton Coal, North.....	453,179
" " South.....	1,110 815
Pennsylvania Coal Company, Railroad.....	999,923
Delaware and Hudson Canal Company, North.....	1,378,594
Shamokin.....	928,4 4
Trevorton.....	43,611
Short Mountain.....	104,765
Lyken's Valley Coal Company.....	79,965
Wyoming Canal, North.....	76,8 8
" " South.....	814,7 6
Williamstown Colliery.....	201,018
Total, 1869.....	13,727,889
Total, 1868.....	13,914,694
Decrease, 1869.....	186,805

The total amount of Anthracite and Bituminous coal consumed in the United States in 1869, was:

Anthracite.....	13,728,889
Bituminous.....	2,614,6 4
Estimated consumption at mines (anthracite)	2,000,000
" " at large (bituminous)..	12,000,000
Imported coals.....	423,810
Total consumption.....	30,767,888

Synopsis of the Coal Trade for the Year 1869.

FROM THE WEEKLY REVIEWS OF THE ENGINEERING AND MINING JOURNAL.

JANUARY 1.—The year opened with the demand light and trade quiet, owing chiefly to large arrivals and the mild weather. Prices range from $6 25 to $8 50.

JANUARY 8.—The mild weather still continues, and keeps the market quiet and demand light. The Delaware, Lackawanna and Western Railroad Company notified miners working in their collieries, that the pay of miners would be reduced 15c. per car, and other inside labor in proportion. Outside labor was fixed at $1 50 per day of ten hours.

JANUARY 15.—The mild weather continues; the demand light and prices declining.

JANUARY 22.—The consumption of coal still checked by the mild weather. Supplies beginning to accumulate at tide-water. Miners on the lines of the Pan Handle and Allegheny Valley Railroad are on a strike, demanding 5c. per bushel for digging—an advance of 1c. Prices range from $5 to $7 50.

JANUARY 29.—Market fair and prices uniform. Much coal kept from the the market by a general strike; but a large supply being on hand, prices were not seriously affected. Auction sale of Scranton coal—60,000 tons sold; average price obtained, $5 18.

FEBRUARY 5.—Market very unsettled; coal plenty; buyers few; the trade agitated by the question, "What will be the price of coal at the spring opening (April 1st.)" A circular of the Pennsylvania Coal Company, issued this day, quoted rates at which they will supply coal for one month after the opening o the river. An unusually early date for such a circular, and its publication caused much surprise and disappointment Price offered, $4 50 to $4 90.

FEBRUARY 11.—Little or no demand; buyers limiting their orders to the smallest possible quantities. Trade dull. The Pennsylvania Coal Company's circular caused a depression in the price of stove size and a decline of from 25 to 30c. Other sizes unchanged. Freights—New Haven, $1 25; Boston, $3. Prices, $4 50 to $7 50.

FEBRUARY 19.—Market unsettled. The announcement of 80,000 tons of coal to be sold at auction by the Scranton Company, increased the depressing influence created by the Pennsylvania Coal Company's circular. Delaware, Lackawanna and Western Railroad Company issued a circular dated February 15, announcing coal at retail at $6 50—considerably below the market standard.

FEBRUARY 26.—Stove coal declined in price $1 70 per ton, at auction sale on the 24th instant. The market more settled, dealers generally accepting the position forced upon them by the Scranton sale. The President of the Philadelphia and Reading Railroad ordered all coal remaining on the wharves at Port Richmond to be measured on Saturday, 27th. On the amount ascertained to be there, will be credited the various shippers at new rates of transportation, to be announced in a few days. Scranton sale 24th instant, 80,000 tons; average price, $4 33.

MARCH 4.—The supply of coal on hand sufficient for two months' use. The amount is estimated at about 150,000 tons. The Hudson again closed by ice. Trade dull, with increased demand from the retail dealers, in consequence of a cold snap. A meeting was held in this city on the 3d inst., composed of representatives from the

PHILADELPHIA AND READING RAILROAD COMPANY,
LEHIGH COAL AND NAVIGATION COMPANY,
WILKESBARRE COAL AND IRON COMPANY,
DELAWARE AND HUDSON CANAL COMPANY,
PENNSYLVANIA COAL COMPANY,
LEHIGH VALLEY RAILROAD COMPANY,
DELAWARE LACKAWANNA AND WESTERN RAILROAD COMPANY,

to devise a plan by which the supply of coal for this market might be regulated. No plan was agreed upon.

MARCH 12.—The demand f.ir and prices unchanged. Cold weather delays the o ening of the canals. Retail trade very lively; retail price, from $6 50 to $8.

MARCH 19.—Trade active and most dealers quite "sold out," and none of the larger sizes in the market. Prices unchanged. Retailers trying to lay in a stock, thinking the lowest prices have been reached. The large supplies of last month seem to have melted away. Cold weather still making the retail trade brisk, Effect of the strike being experienced.

MARCH 26.—Trade very active during the week; coal becoming scarce; prices advancing from 25 to 30c. for cargoes, and none to be had. Though 200,000 tons more were shipped this year than in '68, it is mostly stored by the furnaces, in view of the strike. The Philadelphia and Reading Railroad drawbacks—Lump-Steamboat and Lump, 90c.; Broken, Egg, Chestnut, 70c.; Stove, 50c.—promulgated this week. Retail trade yet good.

APRIL 2.—Market active. Small dealers on hand, and wanting from 50 to 300 tons. Very little coal in the market for immediate delivery. Prices advance from 40 to 50 cents. Scranton sale March 31—80,000 tons, average price, $4 56.

APRIL 9.—The demand good, but the fear of further strikes makes delivery uncertain from first hands. Retail trade good—families in many cases laying in a winter's supply.

APRIL 16—Trade remarkably active, and very little, if any, coal to be had for immediate delivery. Much coal has been sold ahead at prices current at time of delivery, and delivery subject to printed conditions relative to strikes, &c.

APRIL 23.—The amount of coal sent to tide-water up to this time is some 373,836 tons more than in 1868. Trade remains active. Threatened strikes in Schuylkill, Lehigh and Lackawanna regions. Trinity Building repaired, and many of the coal merchants removed back. Prices, $4 50 to $6 50.

APRIL 30.—Market excited over rumors of another strike in the various regions, announced to take place May 1. Coal is held firmly in consequence. Scranton sale, 28th inst., 80,000 tons; average price obtained, $4 79 per ton.

MAY 7.—The market very unsettled, in consequence of various rumors relating to the strikes in the mining regions. A brisk trade sprung upon the little coal that was in the market—one lot of a thousand tons passing through some six different hands, till it reached the original seller at an advance of $1. Hyde Park men get at work. Good prices obtainable.

MAY 14.—Prices somewhat fancy, but demand fair. Great strike started. $6 per ton offered for coal—none to be had. Schuylkill region reported out. Lackawanna, Pittston and Scranton Companies reported as having stopped work also. Great excitement.

MAY 21.—Market excited at rumors regarding the strike. Various companies defer publishing their usual circulars on account of the unsettled state of things in the mining regions. General onslaught of the press on coal monopolists.

MAY 28.—Uncertainty prevailing—market yet unsettled. The strikers, and the effect of their action on the future prices of coal, the great subject of discussion among the trade. Only about 30 days' supply remains on hand in this city. Miners threatening operators and men. Dealers trying to stock up. No auction sale.

JUNE 4.—The month opens with the positions of affairs unchanged. The suspension still the chief subject of thought. Prices for stray lots, fancy, $8 to $9 50.

JUNE 11.—Trade very quiet. Little demand from the retailers. Small supplies of coal come in from various quarters tending to relieve the market. Many of the furnaces on the line of the railroads and canals are running short. Coal re-shipped to some of them to enable them to hold out till the end of the strike. "Odds and ends" are sold at fancy prices, from $8 50 to $10 per ton. Miners basis proposed.

JUNE 18.—The market still unsettled. There has been no real demand for coal since the suspension. High prices the cause. Many retail dealers have a large supply in anticipation of the strike. Retail prices have not changed in the face of the advance of the wholesale rates. The wholesale advance is in a great measure caused by furnaces who, rather than close their works, will pay fancy prices. Miners and operators are mutually offering terms, but as yet can make no agreement. A few collieries begin work.

JUNE 25.—The market is as quiet as though no suspensions had taken place—1,250,000 tons decrease already effected. The partial resumption of work has relieved the market to some extent, and prevented a panic. The demand is still light. No prices quoted. Miners and operators are not able to arrive at satisfactory terms as yet. No auction sale this month.

JULY 1.—Lehigh operators have allowed the miners to resume work on their own terms. The market is greatly excited in consequence. Too much uncertainty to make quotations.

JULY 8.—The market quiet and settled at last. About the usual quantity coming into the market, and although there is no great rush of out-of-town dealers, and the city demand is light, the fancy prices of three weeks ago are yet asked. Lehigh, $7 75 @ $8 75 alongside, and Schuylkill, $7 @ 7 50 on board. Reading Railroad takes off all drawbacks on coal shipped east of New Brunswick. Large companies still hold out against the strikers.

JULY 15.—High prices tend to keep dealers out of the market. Trade fair. Scranton and Lackawanna coal companies have not yet made terms with their men. Nearly two thousand of the strikers go to work in building the new railroad from Carbondale to Lawsboro'. Difficulty with miners yet unsettled.

JULY 23.—A greater demand, and less stability in prices. Great efforts made to procure large shipments at once. Some want felt for greater means of transportation. Decrease on account of strike, 400,000 tons. Scranton Company men yet out. No auction sale yet.

JULY 30.—Market firm, with an upward tendency. Dealers very busy filling orders. Those who failed to order coal at ruling prices at time of delivery are now running about the market, but find it difficult to find an immediate supply. Quotations have only advanced 30c. on the month's prices, this being the amount of extra toll charged by railroad. Tolls in-

creased—transportation companies taking advantage of the market to make up their losses in the early part of the season. Quotations nominal.

AUGUST 4.—A break in the market; decline of $1 per ton. Market weak and feverish, with large quantities offering. Prices nominal. Large quantities offering. Best coal offering at $8 to $8 50. Lackawanna companies yet out.

AUGUST 13.—The market unsettled—some of the shrewdest buyers looking around for choice lots, thinking "bottom has been reached." Consumers are holding off. Dealers pay by cargo $8 a $8 50—sell, $9 50 a $10 by single ton. City papers still discussing the coal question. Lehigh miners have struck again in consequence of a refusal of the 'basis' terms.

AUGUST 20.—Little speculation during the week. Trade steady. Strikes in the mines still continue. Some companies are negotiating. Drought cuts off some transportation via Schuylkill Canal. Lackawanna miners negotiating to commence work.

AUGUST 27.—The Delaware, Lackawanna & Western Railroad Company make terms with their men. Announcement of a large Scranton sale of coal to take place in a few days has rather unsettled the market. Cumberland coals coming in demand.

SEPTEMBER 2.—Market unsettled. Resumption of auction sales. Consumers are feeling that prices are as low as they will be, and are beginding to order more freely and in larger quantities. The demand for semi-bituminous coal is increasing, and their value more appreciated. Freights lower. Retail trade good. Terrible disaster at Avondale mine; two hundred lives lost.

SEPTEMBER 9.—Retailers come into the market more freely, and there is little coal left unsold. Some customers are putting in winter stocks. Freights to all seaboard ports are very low. Delaware and Hudson men yet out. The disaster at the Avondale mine, near Scranton, Pa., where two hundred men lost their lives, has cast a gloom over the whole trade. The catastrophe is the general topic in all the coal offices. Freights yet very low. Prices range from $7 00 to $8 25.

SEPTEMBER 16.—Trade unexpectedly dull. Prices low yet; purchasers yet waiting. There is a falling off of about 100,000 tons per week as compared with 1868.

SEPTEMBER 23.—The announcement of a Scranton sale of 90.000 tons of coal knocked the bottom out of the market. Shipments slowly decreasing. The trade in bituminous coals is increasing. Prices range from $6 25 to $7 75. Trade very quiet.

SEPTEMBER 30.—An average decline of 75c. per ton at Scranton auction sale. Retailers are beginning to want a supply of coal pretty badly. Stocks lessened somewhat by a few days of cold weather. Market strong for Scranton at an advance of fifty cents per ton. Average price obtained at sale $3 76.

OCTOBER 8.—A great storm has done much damage. Schuylkill Canal has been idle for a week. Probable amount of coal delayed, 400,000 tons. Retail trade busy. Cumberland coals firm, and demand good. Heavy freshets in the coal regions; prices advancing.

OCTOBER 15.—Market moderately active. Miscellaneous coals range from $6 to $7 50. Lehigh coals almost entirely out of the market. Lump is scarce in all kinds. The large companies report no coal for sale this month on account of orders already taken, which will take all they can supply. Freshet repairs generally completed.

OCTOBER 22.—Trade very active during the week. Prices advanced about 50c. No coals from the Lehigh region on account of new strikes. Schuylkill scarce. Dealers are beginning to get fearful of getting a supply, and are crowding into the market. Prices are advancing in consequence. Consumers are ordering coal freely. Prices range, for Company coals, from $6 50 to $7 85. Announcement 76th Scranton sale 70,000 tons offered.

OCTOBER 28.—A full supply of large size coals. Small sizes very scarce. Stove coal is in great demand, and little to be had. Average price at the Scranton coal sale was $6 36, an advance from last month of 30c. Retail trade brisk. Scranton sale strengthens the market.

NOVEMBER 5.—Market feverish. Demand sharp for all sizes, but overwhelming for stove coal. Difficult to get the coal delivered that has been purchased from large companies. Resumption of operations in Lehigh district. Prices range from $8 50 to $9 75.

NOVEMBER 12.—Market firm, with active demand for prepared sizes. No supply of stove coal. The strike on the Erie Railroad interferes somewhat with the shipments of the Pennsylvania Coal Company. Great complaints of the slow delivery of coal from the Scranton docks. Good demand for Bituminous coals. Retailers are beginning to adopt them.

NOVEMBER 19.—Market yet very active. Bituminous coals still in good demand. Foreign coals brisk. Stove coals very scarce. Sells as high as $10 00. Scranton sale announced 70,000 tons offered, and showed a decline of $1 48.

NOVEMBER 27.—Wholesale market unsettled by the low prices. Great complaint of vessels having to wait at Elizabethport for Scranton coal. Market prices range from $7 00 to $8 50.

DECEMBER 3.—Market yet unsettled, and but little inquiry for coal from dealers. Larger sizes have fallen off in price. Retail trade lively at $7 50. Bituminous coals are in good demand, and prices are advancing. Prices declining.

DECEMBER 10.—Trade dull, every one expecting a further decline. Demand for Chestnut good, and little coming into the market. All the canals have been closed by the last cold weather. Retail trade dull. Prices falling rapidly.

DECEMBER 17.—A general distrust prevails in the market. Trade very dull. It is estimated that there are not more than 20,000 tons in the market. Trade somewhat exercised over a failure of $65,000. Retail trade more active. Prices range from $5 50 to $5 75. Retail $7 50.

DECEMBER 29.—Trade agitated by more failures. Losses $150,000. Trade very dull indeed. 75th Scranton sale announced 70,000 tons offered. Weather remains very mild for the season. Mining calamity at Stockton.

Morris and Essex Railroad.

This road, running from Easton to Hoboken, commenced its Coal Trade in 1867. It has been leased by the Delaware, Lackawanna and Western Railroad Co., who will work it hereafter. The Coal Trade was as follows:

	Way.	Through.	Total.
In 1867	99,559	133,662	243,221
In 1868	146,820	200,319	447,039
In 1869	192,217	360,066	552,283
Increase in 1869—tons			105,244

Central Railroad of New Jersey.

The following is the quantity of Coal transported over the New Jersey Central Railroad in the following years:

Years.	Lehigh. Tons.	Lackawanna. Tons.	Total. Tons.
1856	33,325	98,670	131,994
1857	84,881	209,950	294,791
1858	122,923	417,726	540,549
1859	180,054	461,430	641,487
1860	263,885	590,562	854,647
1861	254,567	568,869	823,235
1862	311,296	502,376	816,571
1863	435,729	613,954	1,049,683
1864	474,221	675,743	1,149,964
1865	509,619	494,687	1,004,306
1866	511,076	779,173	1,290,249
1867	513,383	854,520	1,369,903
1868	765,657	853,189	1,618,846
1869	733,495	822,567	1,556,062
	5,193,894	7,943,702	18,139,601

Of this quantity 128,492 tons of Lehigh and 11,671 tons of Lackawanna, in all 134,163, were consumed on the line of the road.

LEHIGH MOVEMENTS.

Report of Coal Transported over Lehigh Valley Railroad.

For the year ending November 30, 1869.

Where Shipped From.	Total Tons. Cwt.
Franklin Co.	55,716 01
Germania Co.	321 16
Wilkesbarre Coal and Iron Company	3,419 02
Warrior Run	23,809 09
Parrish & Thomas	18,179 13
Pine Ridge	146 07
New Jersey	15,915 12
Wyoming Coal & Trans. Co.	35,452 03
Everhart Coal Co.	10 10
Hillman & Son	19,772 13
Bowkley, P. & Co.	44 13
Mineral Spring	35 825 15
Enterprise, J. H's	91,300 17
Burroughs	24 588 06
West Pittston	3,138 06
Shawnee, J. C. F.	10.995 18
Consumers Coal Co.	6,919 16
Charles Hutchison	573 19
Harvey & Bro.	2,066 09
Wyoming Valley	13,264 14
Henry Colliery	658 14
New England	19,278 11
Delaware and Hudson Coal Company	5 065 06
Maltby Colliery	3,054 17
Gaylord, C. M. D.	16.030 06
Tompkins	5,088 07
Tompkins, A. T.	2,300 03
Ravine, P. & E.	166 04
Chauncey, A. R.	14,250 00
Maryland, B. R.	415 11
Maryland, T. W.	1,990 10
Rough and Ready	584 18
Rock Tunnel	151 04
Butler Colliery	13,050 11
Carbon Hill M. & S.	339 19
Nottingham, T. B. & Co.	1 285 15
Reynolds	2,986 12
Luzerne Coal and Iron Co.	2,117 05
Other shippers	48 06
Total, Wyoming	430.354 13
Same time last year	278,489 06
Increase	171,865 07
Hazleton Region.	
Ashburton Colliery, R. R. Carter	24,783 16
Mount Pleasant	16 526 18
Hazleton	154,651 19
Stockton—E. Sugar Loaf	121,351 08
Lattimer (Pardee, Bro. & Co.)	50,823 03
Stout Coal Co.	32,056 12
Harleigh	59,031 16
Ebervale Coal Co.	55,562 09
Jeddo (G. P. M. & Co)	81 879 15
Woodside, J. C. Co.	9,741 14
Highland C. Co.	10.901 15
Cross Creek	24.574 09
Council Ridge	73.321 17
Buck Mountain	73,003 03
A. P. Goodecke	114 10
Other shippers	240 18
Total, Hazleton	757.745 13
Same time last year	1,020,092 04
Decrease	232,346 11
Upper Lehigh Region.	
Upper Lehigh Coal Co.	8 581 11
Total, U. Lehigh Region	8 581 11
Same time last year	38.30s 19
Decrease	29,7.5 08
Mauch Chunk Region.	
Lehigh Coal and Navigation Company	827 03
Total, M. C. Region	827 03
Beaver Meadow Region.	
Spring Brook	75,917 17
Honey Brook	94,331 00
Ger. Pa. Coal Co.	45.592 15
Spring Mountain	104,851 14
Coleraine	72,891 10
B. Meadow D. W.	103 05

Where Shipped From.	Total Tons. Cwt.
John Connery	162 09
Lehigh Zinc Co.	10,488 12
Stafford (D. W.)	1,622 13
Other shippers	441 12
Total, B. M. Region	406,433 07
Same time last year	432,448 17
Decrease	26,015 10
Mahanoy Region.	
Mt. Rose Coal Co.	5,471 03
Mount Etna	1,745 18
Sherman Colliery, D. E. & Co.	5,371 12
Mahanoy Colliery, Bedford & Co.	46,222 12
Coplay Colliery	67.858 00
Glendon, J. B. B.	36,691 17
Primrose Colliery	49.460 19
E. S. Silliman	59,285 17
McNeal Co.	60.026 18
Knickerbocker	30.565 10
Mammoth Vein	13,476 01
New Boston C. C.	38,847 17
Coal Mt.	1,656 15
Caledonia M. & M.	7.082 14
Richards & Humphreys	145 11
Forrest Colliery, E. H.	409 10
Shamokin and Bear Valley Coal Co.	5 04
C. Lockhart	5,051 02
Other shippers	59 13
Total, Mahanoy	429.347 13
Same time last year	456,292 16
Decrease	26,945 03
Total, Mahanoy	429 347 13
do Beaver Meadow	406,433 07
do Mauch Chunk	827 03
do Upper Lehigh	8,581 11
do Hazleton	787,744 18
do Wyoming	450,354 18
Total	2,983,290 00
To Lehigh and S. R. R. at Penn Haven, for rail	4.562 07
Do., for canal	121.315 01
At Mauch Chunk, for canal	101,003 00
Total, Anthracite	2,310,170 08
Bituminous Coal received from Cata R. R.	21,737 00
N. C. R. R.	
E. P. R. R.	
P. & N. Y. C. & R. R. Co.	
Fall Creek	
Schroeder	
Towanda	
Total, by rail and canal	2.331,407 08
Same time last year	2 605,102 11
Decrease	271,695 03
Forwarded east from Mauch Chunk by rail	2 015 296 11
Same time last year	2,225,639 02
Decrease	210,333 11

Recapitulation.

Forwarded east from Mauch Chunk by rail	2,015 296 11
Delivered at Mauch Chunk	965 03
Delivered on line of road above Mauch Chunk	8 623 02
Delivered above M. Chunk for use of L. V. R. R.	44.051 06
To N. C. R. R. at Mount Carmel	2.516 09
Forwarded North from L. & B. Junction	7,397 19
To L. & S. R. R. at Penn Haven, for railroad	4.562 07
Do., for canal	121.315 01
Do., Packerton for rail	4,450 10
At M. Chunk, for canal	101,003 00
Total, Anthracite	2,310,170 08
Bituminous coal	21,237 00
Total, all kinds	2,331,407 08

Compared with 1868.

	1863—Tons.	1869—Tons.
Wyoming Region	288 137	450,355
Hazleton Region	1,252 938	913,623
Upper Lehigh Region	38,307	8,581
Beaver Meadow Region	554.279	504,796
Mahanoy Region	469,751	431,988
Mauch Chunk Region	.....	827
Total	2.603,103	2,310,170
And was delivered as follows:		
At L. & B. R. R. Junction to N. Y. C. & R. R. Co.	.....	7,398
At Mt. Carmel to Northern Central R. W. Co.	.....	2,517
At Penn Haven Junc. to L. & S. R. R., for canal	202,428	121.315
At Penn Haven Junc. to L. & S. R. R., for rail	25,928	4,562
At Mauch Chunk to L. & S. R. R., for canal	116,161	101,003
At and above M. Chunk, for use of L. V. R. R. Co.	24,993	44,051
On line of L. V. R. above Mauch Chunk	2,101	8,623
At Mauch Chunk	868	965
At Packerton to L. & S. R. R., for rail	.....	4,449
On line of L. V. R. R. below Mauch Chunk	620,621	574,750
On line for use of L. V. R. R. R. Co.	38,266	35,736
To Catasauqua & Fogelsville R. R.	.....	5,343
To East Penna. R. R.	12 205	10 219
To North Penna. R. R.	173.205	191 891
To Morris Canal	161 555	127,436
To Central R. R. of New Jersey	746,491	530,664
To Belvidere and Delaware R. R.	267.651	328 905
To Morris & E sex R. R.	265,216	210,352
Total	2,603,103	2,310.170
Total by Canal	.....	222 318
Total by R. R.	.....	2 087,852
Grand Total	.....	2,310,170

DETAIL of Coal on line of road below Mauch Chunk, for the year ending November 30th, 1869.

Points of Delivery.	1863. Tons.	1869. Tons.	Points of Delivery.	1863. Tons.	1869. Tons.
Packerton	103	39	Allent'n Iron W'ks.	60 070	57,108
Lehighton	2,3-0	1,186	Furnace Station	2.666	2,666
Parryville	128	361	Lehigh Roll. Mill	3.807	1,503
Carbon Iron Co.	27,021	16,746	Allentown Roll. Mill	25 186	23,986
Kittatinny	61	.....	Roberts Iron Co.	32.267	26.928
Lehigh Gap	493	598	Hope Rolling Mill	3 365	1,101
Slatington	5,346	5,946	Allentown	14 891	16.710
Rockdale	312	239	Lehigh Iron Co.	.....	7.264
Laury's	192	364	Jordan Manf. Co.	8,874	7,527
Whitehall	526	207	Bethlehem	6,825	6,086
Ironton R. R.	.....	4 982	Lehigh and Lackawanna R. R.	275	.....
Coplay	4,680	1,862	Lehigh Zinc Co.	26,861	28,486
Lehigh Valley Iron Works	33,785	41,740	Bethlehem Roll. M'l	58 984	72,338
Thomas Iron Co.	105,847	69,807	Freemansburg	643	569
Hokendauqua	159	212	Lime Ridge	516	400
Catasauqua	909	1,619	Coleraine Furnaces	.....	2.022
Lehigh Crane Iron Co.	85,431	73,675	Glendon Iron Works	25,706	33,817
Catasauqua Manufacturing Co.	5,733	6,526	Easton	9,297	11,270
Catasa. & Fog. R.R.	7,460	5,343	Phillipsburg	7.264	9,076
East Penn Iron Co.	2.593	4,116	Andover Iron Wks.	23,350	28,718
Fullerton	1,118	1,226	Warren Foundry	5,569	5,106
			Total	658,887	580,093

Belvidere and Delaware Railroad Coal Tonnage.

The following is the quantity of Coal transported over this Road, received from the Lehigh Region in the following years:

	Through.	Way.	Total.		Through.	Way.	Total.
1869	455,684	72,539	528,223	1867	269,788	18,586	288,321
1868	312,228	19,065	331,292	1866	174,508	13,554	188,062

Lehigh Canal Coal Trade.

Shipped for the year ending December 11, 1869.

Where from.	Total. Tons. Cwt.
Mauch Chunk.	
Lehigh Coal & Nav. Co.	.....
Summit Mines	189,079 04
Room Run Mines	3,366 14
Total Mauch Chunk	192,445 18
Beaver Meadow.	
W. T. Carter & Co.	15,089 06
Spring Mount'n Coal Co.	5,073 09
A. L. Mumper & Co.	15,823 11
Honey Brook Coal Co.	38,768 06
German Pa. Coal Co.	21,516 14
Thomas, Hull & Co.	.....
Other Shippers	1,842 11
Total Beaver Meadow	98,113 17
Mahanoy.	
McNeal Coal & Iron Co.	89 05
Knic'k'r Anth't Coal Co.	98 10
New Boston Coal Co.	236 17
Delano Mines	.....
Bedford & Cox	450 10
Mount Etna Coal Co.	437 06
Coplay	1,2.3 10
Glendon Coal Co.	.....
Sherman Colliery	189 09
Other Shippers	.....
Total Mahanoy	2,705 07
Hazleton.	
A. Pardee	28,423 03
G. B. Markle & Co.	12,172 02
Taggart, Butler & Co.	909 10
Buck Mountain Coal Co.	18,5-2 00
Sharpe, Weiss & Co.	13,026 05
Coxe, Brothers & Co.	4,736 15
Ebervale Coal Co.	12,126 03
Stout Coal Co.	6,403 06
Harleigh Coal Co.	10,859 18
Ashburton Coal Co.	1,336 06
Highland Coal Co.	1,463 16
Mount Hall	.....
Jeddo Coal Co.	2,974 12
Pardee, Bros. & Co.	2,992 11
Sugar Loaf	.....
Other Shippers	2,129 13
Total Hazleton	118,126 00
Upper Lehigh.	
Upper Lehigh Coal Co.	4,998 01
Other Shippers	187 11
Total Upper Lehigh	5,185 12

Where from.	Total. Tons. Cwt.
Wyoming.	
Newport Coal Co.	91 14
Valley Coal Co.	.....
Warrior Run Min. Co.	.....
Parrish & Thomas	11,938 12
New Jersey Coal Co.	8,007 04
Preston Colliery	.....
L. & S. Coal Co.	.....
Germania Coal Co.	9,962 08
Franklin Coal Co.	.....
Audenried Imp. & Coal Co.	.....
Wilkesbarre C. & I. Co.	75,703 09
Union Coal Co.	.....
H. B. Hillman & Son	1,567 15
Wyoming C. & T. Co.	128 16
Mineral Spring Coal Co.	.....
Henry Colliery	9,571 16
Everhardt Coal Co.	7,189 12
East Boston Coal Co.	4,383 13
John Horton	.....
J. H. Swoyer	2,315 09
Shawnee	24,013 03
Harvey Brothers	.....
Del. & Hud. Canal Co.	2,302 10
Albrighton, Roberts & Co.	3,789 03
New England	3,475 13
W. W. Lance	2,609 06
Pine Ridge	4,599 19
Nottingham	6,573 04
Reynolds	4,503 14
Maltby	386 06
Gaylord	1,135 01
Other Shippers	4,338 15
Total Wyoming	188,567 02
Total Mauch Chunk Region	192,445 18
" Beaver Meadow Region	98,113 17
" Mahanoy "	2,705 07
" Hazleton "	118,126 00
" Upper Lehigh "	5,185 12
" Wyoming "	188,567 02
Grand Total	605,143 16
Corresponding week last year	989,947 05
Increase	.....
Decrease	384,803 09

Distribution of Coal.

Consumed on Line of Lehigh Canal	58,319
Passed into the Del. Div. Canal	468,037
" " " Morris "	78,787
Total	605,143

The Coal which passed into the Del. Div. Canal was distributed as follows:

Consumption on Line of Del. Div. Canal	35,081
Passed into Del. and Raritan Canal	247,845
" through to Bristol	185,011
	468,037

Lehigh and Susquehanna Rail Road.

REPORT of Coal Shipped South for the year ending Dec. 31, 1869.

Where from *Wyoming.*	Week. Tons. Cwt.	Total. Tons. Cwt.
Parrish & Thomas	750 00	51,823 06
New Jersey Coal Co	114 08	24,978 12
Lehigh Luz. Coal Co	226 14	3,146 11
Pine Ridge		24,501 19
Germania Coal Co	541 06	22,155 05
Franklin Coal Co		62 04
Mocanaqua Coal Co		2,150 04
West Pittston Coal Co		42 07
Kingston Mines	61 14	61 14
Wilkesbarre C. & I. Co	8,572 04	423,428 10
Del. & Hud. Canal Co	1,171 18	40,364 09
Mineral Spring Coal Co	656 05	17,576 09
H. B. Hillman & Son		9,205 09
Bowkley, Price & Co		1,646 09
Wyoming C. & T. Co		2,891 11
Henry Colliery	35 14	24,272 17
J. H. Swoyer		3,446 03
Everhardt Coal Co	309 06	35,167 14
Morgan Mines		49 02
Shawnee	215 14	37,271 02
Lances Colliery	367 16	12,142 09
Albrighton, Roberts & Co		7,117 09
New England		9,120 01
Consumers Coal Co	52 05	6,773 19
Reynolds	264 01	15,364 19
Gaylord	1,401 13	7,389 04
Maltby	133 16	1,376 08
Nottingham	143 10	17,917 15
Total Wyoming	15,679 03	811,719 13
Upper Lehigh.		
Upper Lehigh Coal Co		77,261 17
Total Upper Lehigh		77,261 17
Hazleton.		
A. Pardee & Co	11 15	29,579 13
Linderman & Skeer		25 05
Sharpe, Weiss & Co.		13,023 05
W. S. Halsey & Co	24 14	1,247 15
Harleigh Coal Co		11,079 08
G. B. Markle & Co		12,409 06
Ebervale Coal Co		12,243 03
Stout Coal Co		6,578 19
Buck Mountain Coal Co.		18,737 11
Coxe Brothers & Co	22 00	5,166 05
Ashburton Coal Co	65 07	2,702 03
Highland Coal Co		1,454 16
Pardee, Bros. & Co		3,005 16
Jeddo Coal Co		3,123 19
Mount Hall		
Other Shippers		467 12
Total Hazleton	122 16	120,938 02
Mauch Chunk.		
Lehigh Coal & Nav. Co.		
Summit Mines	6,605 16	224,870 16
Room Run Mines		33,033 18
Total Mauch Chunk	6,605 16	257,904 14
Total Mauch Chunk Region	6,605 16	257,904 14
" Hazleton "	122 16	1.0.938 02
" Upper Lehigh "		77,261 17
" Wyoming "	15,679 03	811 719 13
Grand Total	22,407 15	1,297,824 11
Corresponding week last year	14,621 06	1,042,680 09
Increase	7,786 09	255,141 15
Decrease		
Forwarded South from Mauch Chunk	22,038 19	963,569 06
Delivered on line of the Lehigh & Susquehanna R. R., above Mauch Chunk	230 12	34,548 04
Delivered to Lackawanna & Bloom. R. R., at Plymouth Bridge	88 01	13,239 08
Delivered to Lehigh Valley R. R. Co., at Sugar Notch		5,151 03
Delivered at Coal Port, for shipment by Canal		305,316 12
Total	22,407 15	1,297,824 11

Distribution of Coal delivered South of Mauch Chunk, via L. and S. R. R.:

	Tons.
To Morris and Essex R. R.	317,250
" Central R. R. of N. J.	225 940
" Bel. Del. R. R.	134 925
" North Penn R. R.	63,945
" Lehigh Valley R. R. at Packerton	14,085
" " " & Lackawanna R. R.	7,860
" Morris Canal—Port Delaware	5 300
" Catasuqua and Foglesville R. R.	4,528
On Line of L. and S. R. R. between Mauch Chunk and Easton	159,726
Total	933,569

Morris Canal Coal Trade.

The following is a statement of the amount of Coal which entered the Morris Canal since 1845:

YEAR.	LEHIGH COAL FROM Canal. Tons.	R. R. Tons.	Total Tons.	Scranton Coal. Tons.	Total Tons.
1845	12,567	.....	12,567	.....	12,567
1846	41,142	.....	41,142	.....	41,142
1847	61,951	.....	61,951	.....	61,951
1848	82,159	.....	82,159	.....	82,159
1849	103,482	.....	103,482	.....	103,482
1850	98,100	.....	98,100	.....	98,100
1851	137,237	.....	137,237	.....	137,237
1852	180,189	.....	180,189	.....	180,189
1853	222,582	.....	222,582	.....	222,582
1854	267,864	.....	267,864	.....	267,864
1855	290,730	.....	290,730	.....	290,730
1856	284,828	808	285,636	17,764	303,400
1857	227,652	13,047	240,699	43,599	284,298
1858	281,949	5,550	287,299	55,426	342,725
1859	255,405	5,780	261,185	89,146	350,331
1860	276,947	.....	276,947	127,517	404,464
1861	272,616	1,401	274,017	140,922	414,939
1862	106,431	45,738	152,169	172,128	324,297
1863	208,397	48,234	256,631	145,815	402,446
1 64	194,097	37,644	231,745	151,122	382,866
1865	217,814	74,171	291,981	124,204	416,189
1866	205,351	112,790	318,141	141,024	459,175
1867	171,266	107,206	278,472	146,359	424,831
1868	181,828	106,981	288,809	78,736	347,545
1869	78,787	134,504	213,291	67,896	281,187
	4,460,728	693,654	5,308,762	1,501,670	6,636,690

The coal was distributed as follows:

To Jersey City, &c	129,895
Way Trade	151,292
Total in 1869	281,187

Central Rail Road of New Jersey.

Statement of Coal transported over the Central Rail Road of New Jersey during the year 1869.

Lehigh	733,495.01
Lackawanna	822,567.03
	1,556,062.04

Of this amount there was consigned to

Lehigh.	Port Johnston	253,881.16
	Elizabethport	356,121.04
	Points on line of road	123,492.01
Lackawanna.	Elizabethport	810,896.06
	Points on line of road	11,679.15

The Coal at Port Johnston was consigned to the following parties:

A. Pardee & Co	60,290.14	Lehigh Coal and Navigation Company	42,666.10
L. Audenried & Co	29,524.07		
Stout Coal Company	21,845.13	Wilkesbarre Coal and Iron Company	7,169.09
Honey Brook Coal Company	16,219.04		
Chamberlain & French	13,055.13		
Heliner & Son	32,882.11	Total	253,881 06
Caldwell & Conant	30,313.14		

The Coal at Elizabethport was consigned to the following parties:

Samuel Bonnell, Jr.	123,523 13	E. M. Woodward	2,108.04
New Boston Coal Mining Co.	21,749 50	J. Rommell, Jr.	19,492.06
G. B. Lindermar & Co	64,291.00	Butler & Drake	3,088 19
Detmold & Co.	21,144.15	Randolph Brothers	8,518.06
Mineral Spring Coal Co.	39,731.03	J. S. Sloan	2,760.05
Wilkesbarre Coal and Iron Company	3,233.06	Lehigh and Luzerne Coal Company	10,240 16
Van Duson Brothers	6,238.03	Other parties	5,864.16
Day, Huddle & Co.	21,679.12		
S. Chamberlain	1,989.10	Total	356,121.04
Westervelt & King	3,268 01		

The Lackawanna Coal at Elizabethport was consigned to the Delaware, Lackawanna and Western Railroad Company 810,895.06

SCHUYLKILL MOVEMENTS.

Philadelphia and Reading Railroad.

Points of Supply and Distribution of Anthracite Coal from Schuylkill County, and Bituminous and Anthracite from Harrisburg, on the Philadelphia and Reading Railroad, for the year ending November 30th, 1869.

Amount of Coal received from various Lateral Railroads in Schuylkill Coal Region:

Schuylkill Valley Railroad	132,325	
Mill Creek	223,587	
Mahanoy and Broad Mountain Railroad	1,386,339	
Total at Port Carbon		1,742,251
Mount Carbon Railroad, at Mount Carbon		176,527
Mine Hill and Schuylkill Haven Railroad, at Schuylkill Haven		1,120,964
Schuylkill and Susquehanna Railroad, at Auburn		105,996
Little Schuylkill Railroad, at Port Clinton		542,185
		3,688 923
Bituminous from Harrisburg and Anthracite from Harrisburg, Dauphin, Allentown and Alburtis		550,534
Total of all—tons of 2,240 lbs		4,239,457

WHERE DELIVERED ON LINE OF READING RAILROAD AND BRANCHES.

	Stations or Turnouts.	1868—Tons.		1869—Tons.	
	Tamaqua	121		234	
	Pottsville	1,304		9,148	
	Schuylkill Haven	121		376	
	Landingville	674		786	
	Auburn	8,487		10,380	
	Port Clinton	8		111	
	Hamburg	5,624		4,933	
	Shoemakersville	803		2,881	
	Mohrsville	858		1,219	
	Leesport	2 075		5,270	
	Tuckerton	368		396	
	Reading and East Philadelphia Branch	142,792		214,875	
Lebanon Valley Branch.	Stoking Spring	63,337		116,126	
	Wernersville	1,043		1,220	
	Robesonia	19,810		18,180	
	Womelsdorf	1,862		2,137	
	Sheridan	6,517		13,100	
	Richland	2,321		2,096	
	Myerstown	5,029		6,301	
	Lebanon	71,860		88,332	
	Annville	2,528		2,818	
	Palmyra	2,214		1,779	
	Derry	1,419		1,101	
	Swatara	3,750		4,714	
	Hummelstown	2,786		2,583	
	Beaver and Paxton	180		590	
	Harrisburg	3,529		5,191	
	Exeter	595		726	
	Birdsboro'	8,455		10,238	
	Douglassville	2,738		5,045	
	Pottstown	49,266		48,317	
	Limerick	3,337		2,576	
	Royer's Ford	2,164		3,072	
	Phœnixville	74,975		86,076	
	Perkiomen Junction	3,203		8,120	
	Valley Forge	901		841	
	Port Kennedy	17,890		12,026	
	Norristown	163.904		193,104	
	Rambo's Lime Kilns	5,779		5,003	
	Swede Furnace	7,835		14,599	
	Conshohocken	9,998		16,177	
	Egbert's	111		98	
Philada.	Falls and Mayunk	24,522	38,484		
	Nicetown and Germantown	137,888	157,313		
	Via Belmont	139,521	754,783	207,933	815,067
	Via Columbia Branch	339,880		300,119	
	Via Richmond Branch	112,971		111,218	
	Richmond for shipment		2,113,581		2,362 972
	Total paying freight		3,466,267		4,191.543
	Coal for Company's use		108,607		137,914
	Total of all		3,574,874		4,329,457

East Penna. Rail Road Coal Trade.

The coal trade of the East Pennsylvania Railroad from the Lehigh Region, was:

	TONS.		TONS.
1860	11,030	1865	8,845
1861	10,622	1866	10,050
1862	6,667	1867	6,441
1863	9,526	1868	12,204
1864	9,341	1869	10,219

Philadelphia and Reading Railroad.

COAL TRADE OF THE LINE.

The trade of the line between Pottsville and Philadelphia, and on the Lebanon Valley Railroad, was as follows in the last twenty years:

YEARS.	RAILROAD.	CANAL.	TOTAL.
1850	166,992	40,871	207,836
1851	199,650	112,697	312,836
1852	189,661	132,550	322,211
1853	238,328	155,750	394,078
1854	283,212	160,949	441,160
1855	294,385	187,476	481,861
1856	329,365	191,134	520,499
1857	313,178	198,799	511,977
1858	235,577	205,589	441,166
1859	341,601	213,173	554,774
1860	385,860	223,017	608,887
1861	278,647	156,673	435,320
1862	416,856	129,060	545,916
1863	548,755	122,834	671,589
1864	634,074	114,364	748,448
1865	659,379	87,250	746,629
1866	836,598	174,407	1,010,995
1867	975,694	178,132	1,107,826
1868	597,903	133,014	730,917
1869	923,504	113,549	1,037,053

In the years 1868 and 1869, we have given Philadelphia the credit for all the coal delivered in the incorporated limits of Philadelphia, a portion of which was before reported as the trade of the line. This accounts for the apparent falling off of the trade of the line for the last two years.

Of the above quantity, 909,981 tons were delivered at the following points, where there are iron-works:

	RAILROAD.	CANAL.	TOTAL.
Leesport	5,270	14,098	19,368
Hamburg	4,933	3,621	8,554
Reading	214,875	25,263	240,138
Birdsboro	10,238	11,134	21,372
Douglassville	5,045	10,718	15,763
Pottstown	48,327	812	49,129
Phœnixville	86,076	978	87,154
Port Kennedy	12,026	....	12,026
Norristown	193,104	2,940	194,044
Conshohocken	10,179	1,747	11,924
Spring Mills	....	13,182	13,182
Swede's Furnace	14,599	....	14,599
Robesonia	18,180	....	18,180
Sinking Springs	116,126	....	116,126
Lebanon	88,332	....	88,332
Total			909,891
Supply to these points in 1868			756,497
Increase in 1869			153,394

LATERAL RAIL ROADS.

The following is the quantity of coal transported over the Lateral Railroads in Schuylkill County for the years 1868 and 1869:

	1868.	1869.	Increase.	Decrease.
Mine Hill & S. H.	1,441,922	1,731,245	289,319	
Mahanoy & Broad Mt.	1,348,810	1,549,637	200,827	
Mill Creek	286,416	318,830	32,414	
Schuylkill Valley	181,840	181,390		450
Mount Carbon	158,355	237,030	78,675	
Little Schuylkill	389,994	584,722	194,728	
Lorberry Creek	100,841	59,586		41,255
Good Spring	61,340	84,493	23,153	
	4,019,518	4,746,929	769,116	41,705
Lehigh & Mahanoy	465,331	423,156		42,175
Totals	4,484,849	5,170,085	789,116	83,880
Union R. R.	162,180	144,080		18,100

Showing an Increase in 1869 of 685,236 tons.

The coal received from the Lorberry and Good Spring passed over the Union, and all the coal received from the Mahanoy and Broad Mountain passed over the Mill Creek Railroads.

The receipts of coal at Port Richmond were as follows since 1854:

YEARS.	TONS.	YEARS.	TONS.
1855	1,576,596	1863	2,128,154
1856	1,421,213	1864	2,058,423
1857	1,076 187	1865	2,051,202
1858	1,029,003	1866	2,402,897
1859	1,004,540	1867	2,121,199
1860	1,186,477	1868	2,113,581
1861	969,112	1869	2,362,972
1862	1,325,400		

The loss and gain for 1868 and 1869, we sum up as follows:

	1868 LOSS.	1868 GAIN.	1869 LOSS.	1869 GAIN.
On the line		40,826		306,136
At Philadelphia	130,730			151,804
At Port Richmond	8,618			259,411
Eastern trade by canal		79,018	218,890	
	139,348	110,844	218,890	707,351
	110,844			218,880
	28,504			488,461

Making a gain of 488,461 in 1869, against a loss of 28,504 in 1868. Total gain for the year, 516,965 tons.

Schuylkill Navigation Company.

The following is the Coal tonnage of the Schuylkill Navigation Company, the points from whence received, and the distribution of Coal for the years 1868 and 1869:

FROM	1868—TONS.	1869—TONS.
Port Carbon	316,684	253,605
Mount Carbon	48,636	28,527
Schuylkill Haven	582.777	393,283
Port Clinton	39,531	23,464
Total	987,628	698,879
To Port Carbon	1,602	1,271
Mount Carbon	443	183
Schuylkill Haven	1,815	1,945
Orwigsburg Landing	341	275
Auburn	.....	65
Hamburg and Kerasville	1,866	3,624
Mohrsville	5,205	6,785
Althouses	14,795	14,598
Felix's & Kissinger's Dams	4,169	3,824
Reading	30 448	25,263
Yost's Landing	.....	246
Birdsboro	10.258	11.134
Mount Airy	9,628	10,718
Port Union and Unionville	344	246
Pottstown	546	812
Royer's Ford and Springville	6,582	8,481
Black Rock Dam	447	246
Phœnixville	1,023	978
Brower's Landing	201	.....
Norristown	546	2,940
Conshohocken	14,271	1,747
Spring Mills	14,967	13,182
Manayunk	13,520	20,020
Salem	1,913	180
New Castle	4,675	3,656
Brandywine	8,850	2,464
Wilmington	24,449	18,648
Marcus Hook	351	.....
Chester and Chester Creek	15,907	14,336
Gloucester	4 023	2,401
Darby	2,712	2,486
Philadelphia and vicinity	255,767	203,206
New York and vicinity	535,279	316,389
Baltimore	687	.....

North Penna. Rail Road Coal Trade.

Quantity transported over this Road from the Lehigh Region in in the following years:

	TONS.		TONS.
1858	73,124	1864	123,475
1859	80,342	1865	129,695
1860	91,327	1866	141.841
1861	98.389	1867	140.827
1862	103,947	1868	218,614
1863	113,680	1869	255,846
Increase in 1869			37,222

Schuylkill Region.

COAL OPERATOR

The following is the quantity of coal mined and sent to market by the principal companies or firms in 1 69, from Schuylkill, Columbia and part of Northumberland counties:

Philadelphia Coal Co., Colorado	1	119,277	195.297
Girard Coal Co., Shenandoah	1	76,101	
Preston Coal Co., No. 1		36,611	
do. do. No. 2		61,515	174,074
do. do. No. 4		76,548	
Hickory Coal Co	2		165,464
T. H. Schollenberger	2		111,961
Locustdale Coal Co	2		109,986
George S. Repplier & Co	1	52,866	90,717
George S. R pplier	1	37,853	
Lee, Grant & Co	1		90,809
Cain, Hacker & Cook	1		89,899
W. H. Whitaker & Co	2	49,569	89,837
Focht, Whittaker & Co	1	40,268	
E. Borda	1	81,628	88,447
Carter, Borda & Co	1	6,419	
R. Gorrell & Co	1		87,85
E. S. Silliman, trustee	1		84,195
Robison, Gult & Co	2		84,043
G. W. Johns & Bro	1		82,202
St. Nicholas Coal Co	1		82,691
J. C. Northall & Co	1		78,980
Scott, Walter & Co	1		77,223
Gilberton Coal Co	1		75,987
George W. Snyder	1		75,177
May, Patterson & Co	1		74,211
J. M. Freck	1		70,802
J. Anderson & Co	1	44,967	70,384
J. W. & P. Ryon & Co	1	25,417	
Thomas Coal Co	1		67,862
Lentz & Bowman	1		67,853
J. J. Conner	1	58,861	67,184
J. J. Conner & Son	1	8,323	
Douty, Reed & Gable	1		64,939
Wiggan & Treibels	1		63,936
Murray, Winlack & Co	2		64,639
William Montelius	1		63,560
Wolf Creek Diamond Coal Co	1		61,322
Pine Knot Collieries	2		61,238
George W. Cole	1		60,693
Althouse & Focht	1		60,061
McNeal Coal Co	1		60,023
Miller, Graeff & Co	2		59,586
E. S. Silliman	1		59,285
Swatara Falls Coal Co	2		58,463
J. K. Sigfried	1		57,874
Taylor, Lindsay & Co	1		57,698
J. Langdon	1		57,395
Excelsior Coal Co	1		56,273
S. M. Heaton & Co	1		55,836
T. Garretson	1		55,495
Mt. Carmel Locust Mt. Coal Co	1		54,643
Hill & Harris	1		54,414
Graber, Kembel & Co	2		50,260
Girard Mammoth Coal Co	1		49,513
Caldwell, Conant & Co	1		49,461
Bancroft, Lewis & Co	1		47,553
Enterprise Coal Co	1		47,112
Bedford & Cox	1		46,223
Suffolk Coal Co	1		44,939
Henry Heil	1		41,909
Lucas, Denning & Co	3		40,985
Shamokin & Broad Valley Coal Co	1		37,104
Knickerbocker Coal Co	1		36,899
New Boston Coal Co	1		36,692
Schall & Donohoe	1		32,137
J. Bartholomew, Jr.	1		31,902
H. Guiterman	1	19,852	31,325
Guiterman & Heebner	1	11,473	
C. L. Goodridge & Co	1		31,444
W. Kendrick & Co	1		31,134
S. Bittenbender & Co	1		31,021
Lawrence, Merkle & Co	1		30,391
E. C. Whittesey & Harris & Williams	1		30,357
Whetstone & Co	1		30,375
B. L. Eshelman	1	24,116	30,234
Eshelman & Co	1	6,118	
Kear & Co	2		26,779
S. E. Griscom & Co	1		26,359
J. E. Wynkoop	1		25,322
Owen, Long & Co	1		24,091
Tremont Coal Co	1		23,531
D. Hoch & Co	1		23,092
G. W. Pomeroy (3 months idle)	1		22,851
E. Bast & Co	1		21,102
Other Shippers			596,139
Total			5,170,085
1868			4,484,849
Increase			685,236
Number of operators, 1869			128
" " " 1868			100
Increase			28
Number of Collieries worked, 1869			148
" " " " 1868			126
Increase			22

Showing an increase of 28 operators, 22 collieries, and 685,236 tons over 1868.

Of the above quantity 71 collieries north of the Broad Mountain furnished 3,207,976 tons, and 74 collieries south of the mountain 1,962,109 tons, making altogether 5,170,085 tons transported over the lateral railroads of the county.

Forty-seven firms with 64 collieries, mined and sent to market 3,529,486 tons, leaving only 1,640,599 tons sent by the remaining 81 operators with 84 collieries.

North of the Broad Mountain the 74 collieries averaged 44,702 tons, and the 74 south averaged 26,514 tons. In 1868 the average of the collieries north of the Broad Mountain was 41,594 tons, and south 28,568 tons.

The largest product of a single colliery in 1869 was from the Philadelphia Coal Co., 119,297 tons. The next largest was from the colliery of Lee, Grant & Co., 90,809 tons. In 1868 the largest product of a single colliery, 129,129, was mined by Repplier, Moodie & Co.

The quantity of coal transported over the Lateral Railroads in Schuylkill county during 1869 was	5,170,085	tons.
Sent to market by railroad and canal	4,848,726	"
Sold in towns, &c., in county	321,359	"

Schuylkill and Susquehanna Railroad Coal Trade.

The following is the quantity of Coal transported over the Schuylkill and Susquehanna Railroad in 1869:

FROM	EAST.	WEST.	TOTAL.
Pinegrove	103,473	37,768	146,241
Dauphin	West	.....	140,784
Auburn	do	.....	10,224
			297.249
In 1868	282,806	40 554	323,860
1867	129,856	27,962	257,669
1866	146,733	21,100	200,437
1865	168,296	18,458	186,754

	EAST.	WEST.	TOTAL.
In 1864	191,391	24,534	240,657
1863	189,254	48,449	237,703
1862	146,065	53,842	199 937
1861	101.523	91,820	193.343
1860	94,975	14,718	109.693
1859	81,699	19 857	101,457
1858	60,455	43,493	103,928
1857	44,801	37,484	82,285
1856	42,393	34.914	77,307

This road is now owned and worked by the Reading Railroad Company.

Northern Central Railroad.

The following is the coal tonnage of the Northern Central Railroad for the years 1866, 1867, 1868 and 1869, which has been furnished us by Mr. Barry:

	WAY.	BALTIMORE.	TOTAL.
1866	177,954	100,110	278,146
1867	304.567	148.810	453,275
1868	455.345	175,334	630,679
1869	414,665	146,534	561,198

The coal was derived from the following regions:

	1866.	1867.	1868.	1869.
Lykens Valley	62,210	204,639	293,725	282,995
Treverton	31,257	23,457	32,843	15,010
Shamokin	83,089	88,075	123,855	107,750
Lack. & Bl. R. R.	101,608	137,085	180,256	155,443
	278,164	452,275	630,679	561,198

Little Schuylkill Coal Trade.

The following is the quantity of coal transported over the East Mahanoy and Little Schuylkill Railroad for the year ending November 30, 1869, by the different operators:

TAMAQUA REGION.

NAMES OF OPERATORS.	NO. OF COLLIERIES.	TOTAL TONS.
E. Borda	2	81,626
George Ormrod	1	14,478
Whetstone & Co.	1	28,497
Moss & Co.	1	9,079
James Glenn & Co.	1	6,177
Raabe & Co.	1	14,289
E. Gauyot & Co.	1	13,097
Carter, Borda & Co.	1	6,419
John W. Krell	1	1,201
Evan Cann	1	337
John Randall	1	547
Bohannan & Larer	1	2,172
Patent Fuel Co.	1	744
John Whetstone	1	1,378
From Mahanoy region		414,768
Total		584,722

Pennsylvania Coal Company.

Anthracite Coal mined and forwarded by the Pennsylvania Coal Company, for the Year ending Dec. 31st, 1869:

	FOR YEAR 1869.	TO SAME DATE 1868.
By Railway	947,930 1-20 tons.	924,849 15-20 tons.
" Canal	18,706 18-20 "	29,004 19-20 "
Totals	966,636 19-20 "	953,854 14-20 "
Increase	12,782 5-20 "	

The Delaware, Lackawanna, and Western Railroad Co.

OFFICE OF THE COAL DEPARTMENT,
SCRANTON, PA., January 3d, 1870.

Coal Transported on the Delaware, Lackawanna, and Western Railroad for the Year ending Friday, Dec. 31st. 1869, and for the corresponding time last Year:

	1869. Tons.	Cwt.	1868. Tons.	Cwt.
Shipped North	453,172	18	610,720	11
" South	1,110,815	1	1,118,064	16
Totals	1,563,987	19	1,728,785	7
Decrease	164,897	8		

W. R. STORRS, General Coal Agent.

Delaware and Hudson Canal Company.

Anthracite coal mined and forwarded by the Delaware and Hudson Canal Company for the fiscal year commencing December 11, 1868, and ending with December 31, 1869, was:

Forwarded North	1,502,492 11	
" South	123,899 00	
Total for 1869		1,626,391 11

Production for 1868 was:

Forwarded North	1,521,839 03	
" South	318,842 03	
Total for 1868		1,840,681 06
Decline in 1869		214,289 15

Mines were idle sixteen weeks during the summer of 1869, from a suspension of work by the miners, causing a loss of production of more than 700,000 tons. E. MUSSON, Sup't.

Locust Mountain Coal and Iron Company.

The quantity of Coal sent from the several Collieries of this Company in the year 1869 was as follows:

NAME OF COLLIERY.	WORKED BY	TONS.
Big Mine Run	Taylor, Bast & Lindsay	55,854.16
Locust Run	G. S. Reppher & Co.	36,873.07
Big Run	Murray, Winlack & Co.	56,023.03
Hazel Dell	R. Gorrell & Co.	88,016.02
Stuartville	W. Montelius	63 567 07
Centralia	J. M. Freck	14.740.15
Total		371,465.10

Amount of Coal Shipped by each Operator in Northumberland County, during the Year 1869.

Compiled expressly for the *Shamokin Herald*, by J. J. JOHN.

	COLLIERIES.	EAST. P. & R. R. R.	EAST. Lehigh V. R. R.	WEST. N. C. R. W.	WEST. Z. & V. R. R.	TOTAL, 1869.	TOTAL, 1868.
1	Cameron	196 04	26,998 19	96,962 09		97,158 13	89,359 15
2	Buck Ridge	47,143 07		74,072 06		70,227 18	
3	Stuartville	40,121 03		22,647 15		62,768 18	48,902 01
4	Big Mountain			57,328 14		57,328 14	46,797 15
5	Excelsior	47,580 12		8,651 06		56,231 18	54,477 16
6	Coal Ridge	19,918 13		35,105 04		55,023 17	39,500 00
7	Reliance	53,587 18		848 12		54,436 10	35,276 02
8	Locust Gap	35,063 18		14,919 19		49,983 17	58,069 05
9	Enterprise	46,227 00		885 18		47,112 18	55,734 02
10	Greenback	44,772 19		1,236 10		46,029 09	44,971 03
11	Trevorton	27,472 16			18,138 12	45,611 08	38,727 10
12	Bear Valley	28,707 12		10,664 15		39,372 07	47,069 05
13	Henry Clay, No. 1	26,961 00		10,882 05		37,843 05	40,482 14
14	Henry Clay, No. 2	15,138 16		21,763 06		36,902 02	35,376 12
15	Lake Fidler	10,357 10		24,092 08		34,449 18	35,854 13
16	Locust Summit	31,902 07				31,902 07	39,836 13
17	Hickory Swamp	15,218 15		16,358 02		31,576 17	14,927 19
18	Burnside	22,969 16		8,343 18		31,313 14	37,509 04
19	Coal Mountain	823 19	1,892 03	22,187 00		24,893 02	10,983 05
20	Green Mountain	2,721 05		16,380 09		19,101 14	48,285 13
21	Lambert	5,251 03		7,765 07		13,016 10	19,993 14
22	Caledonia		4,736 16	2,516 09		7,243 05	19,000 00
23	Daniel Webster	6,735 05		196 15		6,932 00	2,604 13
24	Franklin	5,624 01		609 11		6,233 12	4,817 06
25	Ben Franklin	3,733 18				3,733 18	
26	Frank Gowan	1,952 19		264 12		2,217 11	
27	Accommodation	447 01		165 18		612 19	
	Other Collieries	625 01		287 09		1,012 10	
	Total	541,254 18	6,608 19	408,013 10	18,138 12	974,015 19	911,784 18

☞ Collieries numbered according to shipments for 1869. ☜

RECAPITULATION.

Sent East by P. and R. R. R.	541,254 18	
" " L. V. R. R.	6,608 19	
		547,863 17
Sent West by N. C. R. W.	408,013 10	
" " Z. V. R. R.	18,138 12	
		426,152 02
Total, 1869		974,015 19
" 1868		911,784 18
Increase		62,231 01

The following is the quantity of Coal sent over the Shamokin Division of N. C. Railroad by each operator during the year 1869:

NAMES OF COLLIERIES AND LESSEES.	TONS.
Cameron—John Haas & Co.	96,856
Bear Valley—Shamokin & B. V. Coal Co.	18.749
Burnside—S. Bittenbender & Co.	16,452
Henry Clay—Robertson, Guiterman & Co.	10,883
Big Mountain—J. Langdon	57,253
Buck Ridge—May, Patterson & Bro.	26,845
Luke Fidler—Burnside Coal & Iron Co.	34,033
Lambert—T. S. Dewees, Agt.	13,108
Hickory Swamp—Shamokin Coal Co.	31.566
Henry Clay, No. 2—John B. Douty	36,779
Greenback—Robertson, Guiterman & Co.	1,257
Excelsior—Excelsior Coal Mining Co.	8,651
Enterprise—Enterprise Coal Co.	886
Green Mountain—S. Johns & Sons.	18,485
Reliance—Mt. Carmel Locust Mt. Coal Co.	849
Coal Mountain—F. Roads & Co.	27,517
Stuartville—Wm. Montelius	20,252
Daniel Webster—Jas. B. Wingate, Agt.	5.985
Coal Ridge—Coal Ridge Imp. Co.	31,852
Franklin—Reyer & Bro.	610
Bellas—Douty & Kutzner	56
Locust Gap—Graber & Kemble	12,249
Accommodation—Boughner & Shipp	430
Grant—Bower, Martin & Aucker	93
Clinton—Bechtel, Kulp & Co.	54
Mt. Pleasant—W. A. Richardson & Co.	54
Caledonia	1 614
Total	474 524

The following is the distribution of the Coal carried over the Shamokin Division Northern Central Railway in 1869:

To M. H. Railroad	72,284
To L. Valley Railroad	6.191
To Philadelphia & Erie Railroad	87,362
To Elmira Division	136,128
To Northern C. R. W.	105,142
To Canal at Sunbury	67,416
Total	474,523

Some of the operators in the Shamokin Region only sent a portion of their Coal over the Shamokin Division of the Northern Central Railroad. The Schuylkill, Mount Carmel and Shamokin Regions have become so blended, the Coal being transported over several roads, that it has become almost impossible to give each operator the correct quantities mined—and we therefore separate the trade North and South.

Northumberland County Coal Trade.

Shamokin and Treverton Coal Trade, from its commencement to the present time.

YEAR.	SHAMOKIN.	TREVORTON.	TOTAL.
1839	11,930	....	11,930
1840	15,505	....	15.505
1841	21,463	....	21,463
1842	10,000	....	10,000
1843	10,000	....	10.000
1844	13,087	....	13,087
1845	10.000	....	10,000
1846	12,572	....	12,572
1847	14,904	....	14,904
1848	19,356	....	19,356
1849	19.650	....	19,650
1850	19,921	....	19.921
1851	24,899	....	24,899
1852	25,846	....	25,846
1853	15.500	....	15,500
1854	63,500	....	63,500
1855	116,117	....	116,117
1856	137,406	73,112	210,518
1857	155,806	110,711	266,517
1858	135,793	106,686	242,579
1859	180,753	124,290	305.043
1860	210,108	90,148	300,256
1861	241,451	49,477	290 928
1862	241,612	63,223	304,865
1863	274.936	62,200	337,136
1864	333.478	56.301	389,779
1865	457,162	27,095	484,257
1866	557,161	53 648	610,809
1867	485,697	48,118	533,815
1868	873,057	38.727	911,784
1869	928,404	45,611	974,015
	5,637.204	949,347	6,586,551

RECAPITULATION of Trevorton Coal Shipments for 1869:

1869.	EAST.	WEST.	TOTAL.
January	.....	2,563 02	2,563 02
February	.....	2,040 14	2,040 14
March	.....	2,143 11	2,143 11
April	.....	1,919 07	1,919 07
May	.....	19 06	19 06
June	.....	839 08	839 08
July	4,019 19	2,344 11	6,364 07
August	6,475 14	964 15	7,440 09
September	4.864 16	1,086 12	5,951 08
October	3.580 01	1,199 03	4,779 04
November	7,216 05	1,916 18	9,133 03
December	1,316 04	1,101 05	2,417 09
Total	27,472 16	18,138 12	45,611 08

The Bituminous Market.

The Cumberland Bituminous Coal Trade, during the year, shows an increased demand for the favorite coal, from all quarters. As a steam generator, these coals are probably worth fully one dollar per ton more than any anthracite. Our manufacturers and steamship owners prefer them when they can be had at or about the same price as anthracite. The fact that the prices of Cumberland coal remained fixed during the entire year ($7 25 to $7 50), while anthracite fluctuated between $4 50 and $9 50, greatly increased the demand for the Cumberland coals. Retailers had frequent calls for them, purchasers were well pleased with them, and a heavy and remunerative business was carried on. The agitation of the tariff question, no doubt, did much toward keeping the price of Cumberland coal uniform, and caused the managers of the various large mining corporations engaged in their production not to attempt to follow other coals in their upward tendency.

Cumberland Coal Trade.

We have received from Mr. C. Slack, of Mount Savage, Maryland, full and interesting tabular statistics of the Cumberland coal trade during the year 1869. The statements have been made up from information received from official sources. We give the following extract:

DETAILS OF PRODUCTION OF 1869.

NAME OF COMPANY OR MINE.	1869. To B. & O. R. R. Tons.	To C. & O. Can. Tons.	Local. Tons.	Total. Tons.	COMPARED WITH 1868. Inc. Tons.	Dec. Tons.
Consolidation Coal Co.	121,224	101.645	33,921	256,790	73,313	.....
Central Coal M. & M. Co.	114 369	128.989	.....	243,298	.....	32,397
American Coal Com.	91,771	128,225	.	219,996	71,474	.....
Cumb. Coal & Iron Co.	99,027	78 908	30 990	208 925	50,661	.....
Hampshire & Balt. C. Co.	109 548	47,727	1.278	158,553	4,761	.....
Borden Mining Comp'y.	81.045	71 590	954	153,589	46,729	.....
Geo.'s Creek C. & I. Co.	100,310	32.153	16	132,479	54 377	.....
Piedmont Coal & Iron Co	92,021	.....	.....	92,021	45,762	.....
Atlantic & Geo. C. Co.	79,185	.....	.....	79.185	47.217	.....
Potomac Coal Company.	67,458	.....	.....	67,458	12,497	.....
Franklin CoalCompany.	59.487	.....	.....	59,487	41.732	.....
Midlothian Coal Co.	23 179	26 320	.....	49 499	42 230	.....
Swanton Mining Com'y.	48,334	.....	.....	48 314	15,872	.....
Maryland Coal Co.	31,342	13,018	.....	44 340	44,340	.....
Cooke Mines	8.782	23,472	529	32,783	11.661	.....
Barton Coal Company.	32,720	.....	.....	32,720	26,370	.....
Savage Mountain Co.	2,936	104	.....	3.040	335	.....
George's Creek MiugCo.	172	.....	.....	172	.....	39
New Hope Mines	.....	.....	.....	.....	.....	9,749
National Coal Company.	.....	.....	.....	.....	.....	5,190
	1,162,830	652,151	67,688	1,882,669	599,601	47,375
					47,375	
					552,226	Inc.

RECAPITULATION.

By Cumberland and Pennsylvania Railroad to Baltimore and Ohio Railroad	981.297	
By Cumberland and Pennsylvania Railroad to Chesapeake and Ohio Canal	573,243	
By Cumberland and Pennsylvania Railroad to Local	35,480	
		1,590,020
By Cumberland Coal and Iron Co.'s Railroad to Baltimore and Ohio Railroad	99,027	
By Cumberland Coal and Iron Co.'s Railroad to Chesapeake and Ohio Canal	78,908	
By Cumberland Coal and Iron Company's Railroad to Local	30 990	208,925
By Hampshire and Baltimore Co., (Va. Mines,) to Baltimore and Ohio Railroad	82,506	
Same to local	1,218	83,724
Total tons in 1869		1,882,669

COAL SHIPMENTS SINCE 1865.

YEARS.	Total by Baltimore & Ohio Railroad. Tons.	Total by Chesapeake & Ohio Canal. Tons.	Aggregate. Tons.
1865	560,293	343,202	903,495
1866	736,153	343,178	1.079.331
1867	735,669	458.153	1,193,822
1868	848,118	482.325	1,330.443
1869	*1.230 518	652,151	1,882 669
Total	10,066,465	4,769.521	14,835 986

The above statistics of the production of the Cumberland (Md.) coal region for the year 1869, show that during that period 1.882 679 tons were mined, an increase of 552,226 tons over 1868. Of this quantity 1,162,830 tons were sent to market by the Baltimore and Ohio railroad, and 652 151 tons by the Chesapeake and Ohio canal, and 67.688 were consumed along the lines of transportation. The aggregate production of the mines from 1842 to 1869 inclusive, amounts to 14,835,986 tons, of which 8 475 609 tons were carried by the Cumberland and Pennsylvania railroad, 3,284,881 by the Cumberland Coal and Iron Company's railroad, 2,190,673 by the George's Creek, and 884,823 by the Hampshire and Baltimore Company. These coal roads are feeders of the Baltimore and Ohio railroad and of the Chesapeake and Ohio canal.

* Includes 79,100 tons used on line of Cumberland Pennsylvania Railroad, chiefly at Mount Savage Iron Works—the line of the Cumberland Coal and Iron Company's Road—and the local consumption at Piedmont and Cumberland; also, 177,151 tons used by the Baltimore and Ohio Railroad Company.

The Despard Coal Company of West Virginia mined and shipped over the Baltimore and Ohio Railroad 77,268 tons gas coal.

Broad Top Semi-Bituminous Coal Trade.

Statement exhibiting the amount of Coal mined and sent to Market in 1869, from the Collieries of the Broad Top Semi-Bituminous Coal Region, with present facilities and estimated capacity for 1870 furnished by JOHN FULTON, Mining Engineer, and ROBT. W. JACOBS, Esq.

NAME OF COLLIERY.	NAME OF PROPRIETOR.	NAME OF OPERATOR.	Tons. Net. Sent to Market in 1869.	No. of Miners at work.	No. of other Workmen	No. of Miners' Houses at Colliery.	Galleries or Rms in Wking Order.	Average Capa'y in Tns. per day.	Estimated Value of Colliery Improvements & Fixtures.
Coalmont,	Hunting'n, Mayers & Co.,	Lewis Evans,	298,969	99	30	40	75	100	$50,000
Cumberland,	H. & B. T. R. R. Co.,	Rockhill Bros. & Co.,	369,778	114	30	40	100	125	50,000
Crawford,	do	John Whitehead & Co.,	11,793	14	2	5	15	50	15,000
Powelton,	Powelton Coal & Iron Co.	Powelton Coal & Iron Co.	14,174	14	4	10	15	50	15,000
Bennet Plane,	do	W. A. Orbison,	18,000	14	4	10	15	50	15,000
Bennet,	do	R. H. Wigton,	14,034	14	4	10	15	50	15,000
Dudley Slope,	O. Bison Dorris & Co.,	J. M. Bacon,	22,000	40	10	20	30	100	30,000
Blair,	Wood & Bacon,	David Blair,	99,388	98	31	40	45	250	40,000
Union,	David Blair,	Redcliff Bros. & Co.	14,034	37	9	16	45	100	40,000
Mount Eagle,	Cummins & Hartman,	David Blair,	18,000	49	13	16	45	100	40,000
Scott,	Semi-Anthracite Coal Co.	Redcliff Bros. & Co.	13,761	32	9	16	45	100	40,000
Edge Hill,	Fisher & Sons	do	6,000	16	4	6	19	75	30,000
Delaware,	Mooredale	George Mears,	96,357	47	14	19	45	125	50,000
North Point,	Broad Top,	do	8,525	16	4	6	15	75	30,000
Fulton,	Carbon,	do	6,000	16	4	6	15	75	30,000
	Cook,	J. W. Ammerman & Co.	3,000	7	2	4	6	75	30,000
	Manson,	do	6,000	16	4	6	15	75	30,000
	Mount Equity,	J. W. Sheets,	6,000	16	4	6	15	75	30,000
	Fisher & Sons,	Jenkins & Hoaling,	6,000	16	4	6	15	75	30,000
	Riddlesburg Ch. & Iron Co.	Rumble Coal & Iron Co.	58,257	70	20	30	75	225	90,000
	Rothwell Wilson,	R. B. Wigton,	58,751	53	18	25	75	225	90,000
	Duvall Shaft,	Richard Langdon,	117,835	53	18	25	75	225	90,000
	Cunard,	do	16,130	32	9	16	45	100	40,000
	Mount Eagle,	Caldwell & Co.,	13,761	32	9	16	45	100	40,000
	John Scott,	do	44,000	44	14	19	45	125	50,000
	Rothwell Wilson,	do	96,357	47	14	21	60	200	80,000
	do	do	8,525	16	4	6	15	75	30,000
	Six Mile Run Coal Co.,	John Taylor & Co	6,000	16	4	6	15	75	30,000
	do	do	6,000	16	4	6	15	75	30,000
Increase	Total shipments in 1869		1,162,830	1,012	322	440	1,178	3,175	$885,000
	Total shipments in 1868		911,784	1,012	322	440	1,178	3,175	$735,000
	Increase		251,046						$150,000

The following table exhibits the quantity of Bituminous coal mined and sent to tide-water in 1869:

Baltimore and Ohio Railroad	1,230,518
Chesapeake and Ohio Canal	652,151
Huntingdon and Broad Top Railroad	380,778
Lehigh Valley Railroad	21,237
Harrisburgh and Dauphin	350,000
Total, 1869	2,614,684
Total, 1868	1,861,373
Increase, 1869	753,311

Imports and Exports of Coal for the year 1869.

[Specially forwarded to the ENGINEERING AND MINING JOURNAL, by FRANCIS A. WALKER, Deputy Commissioner, Bureau of Statistics, Treasury Dep.]

The following table exhibits the amount of Coal Imported and Exported during 1869:

BY COUNTRIES.

COUNTRIES.	IMPORTS. Tons.	IMPORTS. Dollars.	EXPORTS. Tons.	EXPORTS. Dollars.
England	83,014	303,445	....	....
Scotland	5,608	18,115	....	....
Ireland	302	743	....	....
Canada	257,185	630 571	176,452	951.761
Other British N. A. Possessions	30 560	128,017	353	2.265
British West Indies	100	586	1,541	8.165
British Possessions in Africa	....	....	585	3 265
British East Indies	9	60	....	....
Australia	42,034	113,241	....	....
Hamburg	232	1,097	....	....
French Possessions in America	40	183	87	815
All other French Possessions	137	481	....	....
Cuba	....	....	10,643	64,510
Porto Rico	....	....	32	230
Brazil	11	20	2,013	8,954
Mexico	7	28	11.981	70,055
Dutch East Indies	....	....	2,900	15,870
Dutch West Indies	....	....	39	307
China	....	....	21,511	117,744
Japan	....	....	16 367	89.599
Uruguay	17	73	201	1,005
Venezuela	....	....	553	3,861
United States of Columbia	....	....	32 732	182,918
Chili	4 330	18,518	461	4 009
Central American States	....	....	1 995	11.970
Haiwaiian Islands	....	....	416	2,911
Hayti	....	....	1,937	9,690
Denmark and Danish West Indies	20	49	1,077	3 921
All other Portuguese Possessions	....	....	44	392
All other Countries and Ports	204	1,020	....	....
Totals	423,510	$1,216.247	283,783	$1,563.115

Morris Canal Coal Trade.

The following is a statement of the amount of Coal which entered the Morris Canal since 1845:

YEAR.	Lehigh Coal From Canal. Tons.	Lehigh Coal From R. R. Tons.	Total Tons.	Scranton Coal. Tons.	Total Tons.
1845	12,567	.....	12,567	.....	12,567
1846	41,142	.....	41,142	.....	41,142
1847	61,951	.....	61,951	.....	61,951
1848	82,159	.....	82,159	.....	82,159
1849	103,482	.....	103,482	.....	103,482
1850	98,100	.....	98,100	.....	98,100
1851	137,237	.....	137,237	.....	137,237
1852	180,189	.....	180,189	.....	180,189
1853	222,582	.....	222,582	.....	222,582
1854	267,864	.....	267,864	.....	267,864
1855	290,730	.....	290,730	.....	290,730
1856	284,824	808	285,636	17,764	303,400
1857	227,652	13,047	240,699	43,599	284,298
1858	281,949	5,550	287,499	55,426	342,725
1859	255,405	5,780	261,185	89,146	350,331
1860	276,947	.....	276,947	127,517	404,464
1861	272,616	1,401	274,017	140,922	414,939
1862	106,431	45,738	152,169	172,128	324,297
1863	208,397	48,234	256,631	145,815	402,446
1864	194,097	37,644	231,745	151,122	382,866
1865	217,814	74,171	291,984	124,204	416,189
1866	205,351	112,790	318,141	141,034	459,175
1867	171,266	107,206	278,472	146,359	424,831
1868	181,828	106,981	288,809	78,736	347,545
1869	78,787	134,504	213,291	67,896	281,187
	4,460,728	693,654	5,308,762	1,501,670	6,636,690

The coal was distributed as follows:

To Jersey City, &c	129,895
Way Trade	151,292
Total in 1869	281,187

Central Rail Road of New Jersey.

Statement of Coal transported over the Central Rail Road of New Jersey during the year 1869.

Lehigh	733,495.01
Lackawanna	822,567.03
	1,556,062.04

Of this amount there was consigned to

Lehigh.	Port Johnston	253,881.16
	Elizabethport	356,121.04
	Points on line of road	123,492 01
Lackawanna.	Elizabethport	810 896 06
	Points on line of road	11,670.15

The Coal at Port Johnston was consigned to the following parties:

A. Pardee & Co	60,200.14	Lehigh Coal and Navigation Company	42,666.10
L. Audenried & Co	29 528 07		
Stout Coal Company	21.845.13	Wilkesbarre Coal and Iron Company	7,169.09
Honey Brook Coal Company	16 219.04		
Chamberlain & French	13,055.13		
Hellner & Son	32 882.11	Total	253,881 06
Caldwell & Conant	30,313.14		

The Coal at Elizabethport was consigned to the following parties:

Samu'l Bonnell, Jr.	123,523 13	E. M. Woodward	2,108.04
New Boston Coal Mining Co.	21,749 50	J. Rommell, Jr.	19,492.66
G. B. Lindermas & Co	64 393.00	Butler & Drake	3,088.19
Detmold & Co.	20.144.15	Randolph Brothers	8,518.06
Mineral Spring Coal Co.	59,731.03	J. S. Sloan	2,760.05
Wilkesbarre Coal and Iron Company	3 233.06	Lehigh and Luzerne Coal Company	10,240.16
Van Dusen Brothers	6 238.03	Other parties	5,864.10
Day, Huddle & Co.	21,679.12		
S. Chamberlain	1,089.10	Total	356,121.04
Westervelt & King	3,268 02		

The Lackawanna Coal at Elizabethport was consigned to the Delaware, Lackawanna and Western Railroad Company 810,893.06

SCHUYLKILL MOVEMENTS.

Philadelphia and Reading Railroad.

Points of Supply and Distribution of Anthracite Coal from Schuylkill County, and Bituminous and Anthracite from Harrisburg, on the Philadelphia and Reading Railroad, for the year ending November 30th, 1869.

Amount of Coal received from various Lateral Railroads in Schuylkill Coal Region:

Schuylkill Valley Railroad	132 325
Mill Creek	223,587
Mahanoy and Broad Mountain Railroad	1,386,339
Total at Port Carbon	1,742,251
Mount Carbon Railroad, at Mount Carbon	176,527
Mine Hill and Schuylkill Haven Railroad, at Schuylkill Haven	1,120,964
Schuylkill and Susquehanna Railroad, at Auburn	103,996
Little Schuylkill Railroad, at Port Clinton	542,185
	3,688 923
Bituminous from Harrisburg and Anthracite from Harrisburg, Dauphin, Allentown and Alburtis	550,534
Total of all—tons of 2,240 lbs	4,239,457

WHERE DELIVERED ON LINE OF READING RAILROAD AND BRANCHES.

	Stations or Turnouts.	1868—Tons.		1869—Tons.	
	Tamaqua	224		234	
	Pottsville	1,204		9,148	
	Schuylkill Haven	121		376	
	Landingville	674		786	
	Auburn	8,487		10,380	
	Port Clinton	8		111	
	Hamburg	5,624		4,933	
	Shoemakersville	803		2,851	
	Mohrsville	858		1,219	
	Leesport	2,075		5,270	
	Tuckerton	368		396	
	Reading and East Philadelphia Branch	146,792		214,875	
Lebanon Valley Branch.	Sinking Spring	68,337		116,128	
	Werners ville	1,043		1,220	
	Robesonia	19,810		18,180	
	Womelsdorf	1,862		2,137	
	Sheridan	6,317		13,100	
	Richland	2,321		2,096	
	Myerstown	5,029		6,301	
	Lebanon	71,860		88 332	
	Annville	2,528		2,818	
	Palmyra	2,214		1,779	
	Derry	1,419		1,101	
	Swatara	3,750		4,714	
	Hummelstown	2,786		2,583	
	Beaver and Paxton	180		590	
	Harrisburg	3,629		5,191	
	Exeter	595		726	
	Birdsboro'	8,455		10,238	
	Douglassville	2,738		5,045	
	Pottstown	48,266		48,317	
	Limerick	3,337		2,576	
	Royer's Ford	2,164		3,072	
	Phœnixville	74,975		86,076	
	Perkiomen Junction	8,203		8,120	
	Valley Forge	901		841	
	Port Kennedy	17,890		12,026	
	Norristown	163.004		193,104	
	Rambo's Lime Kilns	5,779		5,003	
	Swede Furnace	7,835		14,599	
	Conshohocken	9,998		16,177	
	Egbert's	111		98	
Philad'a.	Falls and Mayunk	24,522	38,484		
	Nicetown and Germantown	137,888	157,313		
	Via Belmont	139,521	754,783 207,933		815,067
	Via Columbia Branch	339,880	300,119		
	Via Richmond Branch	112,971	111,218		
	Richmond for shipment		2,113,581		2,362 972
	Total paying freight		3,466,267		4,191.543
	Coal for Company's use		108,607		137,914
	Total of all		3,574,874		4,329,457

East Penna. Rail Road Coal Trade.

The coal trade of the East Pennsylvania Railroad from the Lehigh Region, was:

	TONS.		TONS.
1860	11,030	1865	8,845
1861	10,622	1866	10,050
1862	6,667	1867	6,441
1863	9,526	1868	12,204
1864	9,341	1869	10,219

Philadelphia and Reading Railroad.

COAL TRADE OF THE LINE.

The trade of the line between Pottsville and Philadelphia, and on the Lebanon Valley Railroad, was as follows in the last twenty years:

YEARS.	RAILROAD.	CANAL.	TOTAL.
1850	166,992	40,871	207,836
1851	199,650	112,697	312,836
1852	189,661	142,550	332,211
1853	248,328	155,750	404,078
1854	283,212	160,949	441,160
1855	294,385	187,476	481,861
1856	329,365	191,134	520,499
1857	313,178	198,799	511,977
1858	245,577	205,589	441,166
1859	341,601	213,173	554,774
1860	385,860	223,017	608,887
1861	278,647	156,675	435,320
1862	416,856	129,060	545,916
1863	548,755	122,834	671,589
1864	634,074	114,364	748,448
1865	659,379	87,250	746,629
1866	836,598	174,407	1,010,905
1867	935,694	178,132	1,107,826
1868	597,903	133,014	730,917
1869	923,504	113,549	1,037,053

In the years 1868 and 1869, we have given Philadelphia the credit for all the coal delivered in the incorporated limits of Philadelphia, a portion of which was before reported as the trade of the line. This accounts for the apparent falling off of the trade of the line for the last two years.

Of the above quantity, 909,981 tons were delivered at the following points, where there are iron-works:

	RAILROAD.	CANAL.	TOTAL.
Leesport	5,270	14,098	19,368
Hamburg	4,933	3,621	8,554
Reading	214,875	25,263	240,138
Birdsboro	10,238	11,134	21,372
Douglassville	5,045	10,718	15,763
Pottstown	48,327	812	49,129
Phœnixville	86,076	978	87,154
Port Kennedy	12,026	....	12,026
Norristown	193,104	2,940	194,044
Conshohocken	10,179	1,747	11,924
Spring Mills	....	13,182	13,182
Swede's Furnace	14,599	....	14,599
Robesonia	18,180	....	18,180
Sinking Springs	116,126	....	116,126
Lebanon	88,332	....	88,332
Total			909,891
Supply to these points in 1868			756,497
Increase in 1869			153,394

LATERAL RAIL ROADS.

The following is the quantity of coal transported over the Lateral Railroads in Schuylkill County for the years 1868 and 1869:

	1868.	1869.	Increase.	Decrease.
Mine Hill & S. H.	1,441,922	1,731,245	239,319	
Mahanoy & Broad Mt.	1,348,810	1,549,637	200,827	
Mill Creek	286,416	318,830	32,414	
Schuylkill Valley	181,840	181,390		450
Mount Carbon	158,355	237,030	78,675	
Little Schuylkill	389,994	584,722	194,728	
Lorberry Creek	100,841	59,586		41,255
Good Spring	61,340	84,493	23,153	
	4,019,518	4,746,929	769,116	41,705
Lehigh & Mahanoy	465,331	423,156		42,175
Totals	4,484,849	5,170,085	789,116	83,880
Union R. R.	162,180	144,080		18,100

Showing an Increase in 1869 of 685,236 tons.

The coal received from the Lorberry and Good Spring passed over the Union, and all the coal received from the Mahanoy and Broad Mountain passed over the Mill Creek Railroads.

The receipts of coal at Port Richmond were as follows since 1854:

YEARS.	TONS.	YEARS.	TONS.
1855	1,576,596	1863	2,128,154
1856	1,421,213	1864	2,058,423
1857	1,076 187	1865	2,051,202
1858	1,029,003	1866	2,402,897
1859	1,004,540	1867	2,121,199
1860	1,186,477	1868	2,113,581
1861	909,112	1869	2,362,972
1862	1,325,400		

The loss and gain for 1868 and 1869, we sum up as follows:

	1868 LOSS.	1868 GAIN.	1869 LOSS.	1869 GAIN.
On the line		40,826		306,136
At Philadelphia	130,730			151,804
At Port Richmond	8,618			259,411
Eastern trade by canal		79,018	218,890	
	139,348	110,844	218,890	707,351
	110,844			218,880
	28,504			488,461

Making a gain of 488,461 in 1869, against a loss of 28,504 in 1868. Total gain for the year, 516,965 tons.

Schuylkill Navigation Company.

The following is the Coal tonnage of the Schuylkill Navigation Company, the points from whence received, and the distribution of Coal for the years 1868 and 1869:

FROM	1868—TONS.	1869—TONS.
Port Carbon	316,684	253,605
Mount Carbon	48,636	28,527
Schuylkill Haven	582 777	393,283
Port Clinton	39.531	23,464
Total	987,628	698,879
To Port Carbon	1,602	1,271
Mount Carbon	443	183
Schuylkill Haven	1,815	1,945
Orwigsburg Landing	341	275
Auburn	.....	65
Hamburg and Kernsville	1,866	3,624
Mohrsville	5,205	6,755
Althouses	14,795	14,098
Felix's & Kissinger's Dams	4,162	3,824
Reading	30 448	25,263
Yost's Landing	.....	246
Birdsboro	10.258	11.134
Mount Airy	9,628	10,718
Port Union and Unionville	344	246
Pottstown	546	812
Royer's Ford and Springville	6,582	8,481
Black Rock Dam	447	246
Phœnixville	1,023	978
Brower's Landing	201	.....
Norristown	546	2,940
Conshohocken	14.271	1,747
Spring Mills	14,967	13,182
Manayunk	13,520	20,020
Salem	1,913	180
New Castle	4,675	3,656
Brandywine	8,850	9,464
Wilmington	24,449	18,648
Marcus Hook	351	.....
Chester and Chester Creek	15,907	14,336
Gloucester	4 023	2,401
Darby	2,712	2,486
Philadelphia and vicinity	255,767	203,266
New York and vicinity	535,279	316,389
Baltimore	687	.....
Totals	987,628	698,879

North Penna. Rail Road Coal Trade.

Quantity transported over this Road from the Lehigh Region in in the following years:

	TONS.		TONS.
1858	73,124	1864	123,475
1859	80,342	1865	129,695
1860	91,327	1866	141,841
1861	98,389	1867	140,827
1862	103,947	1868	218,614
1863	113,680	1869	255,846
	Increase in 1869		37,222

Schuylkill Region.

COAL OPERATOR

The following is the quantity of coal mined and sent to market by the principal companies or firms in 1 69, from Schuylkill, Columbia and part of Northumberland counties:

Philadelphia Coal Co., Colorado	1	119,277	195.297
Girard Coal Co., Shenandoah	1	76,101	
Preston Coal Co., No. 1		36,611	
do. do. No. 2		61,515	174,674
do. do. No. 4		76,548	
Hickory Coal Co	2		165,464
T. H. Schollenberger	2		111,961
Locustdale Coal Co	2		100 86
George S. Repplier & Co	1	52,866	90,717
George S. R pplier	1	37,853	
Lee, Grant & Co	1		90,809
Cain, Hacker & Cook	1		89,899
W. H. Whittaker & Co	2	49,569	89,837
Focht, Whittaker & Co	1	40,268	
E. Borda	1	81,628	88,447
Carter, Borda & Co	1	6,419	
R. Gorrell & Co	1		87,85
E. S. Silliman, trustee	1		84,995
Robison, Guit & Co	2		84,043
G. W. Johns & Bro	1		82,202
St. Nicholas Coal Co	1		82,691
J. C. Northall & Co	1		78,980
Scott, Walter & Co	1		77,223
Gilberton Coal Co	1		75,987
George W. Snyder	1		75,177
May, Patterson & Co	1		74,211
J. M. Freck	1		70,862
J. Anderson & Co	1	44,967	70,384
J. W. & P. Ryon & Co	1	25,417	
Thomas Coal Co	1		67,862
Lentz & Bowman	1		67,853
J. J. Conner	1	58,861	67,184
J. J. Conner & Son	1	8,323	
Douty, Reed & Gable	1		64,939
Wiggan & Treibels	1		63,936
Murray, Winlack & Co	2		64,639
William Montellius	1		63,560
Wolf Creek Diamond Coal Co	1		61,322
Pine Knot Collieries	2		61,238
George W. Cole	1		60,693
Althouse & Focht	1		60,061
McNeal Coal Co	1		60,023
Miller, Graeff & Co	2		59,586
E. S. silliman	1		59,285
Swatara Falls Coal Co	2		58,463
J. K. Sigfried	1		57,874
Taylor, Lindsay & Co	1		57,698
J. Langdon	1		57,385
Excelsior Coal Co	1		56,273
S. M. Heaton & Co	1		55,836
T. Garretson	1		55,495
Mt. Carmel Locust Mt. Coal Co	1		54,643
Hill & Harris	1		54,414
Graber, Kembel & Co	2		50,200
Girard Mammoth Coal Co	1		49,513
Caldwell, Conant & Co	1		49,461
Bancroft, Lewis & Co	1		47,553
Enterprise Coal Co	1		47,112
Bedford & Cox	1		46,223
Suffolk Coal Co	1		44,539
Henry Heil	1		41,909
Lucas, Denning & Co	3		40,985
Shamokin & Broad Valley Coal Co	1		37,104
Knickerbocker Coal Co	1		36,890
New Boston Coal Co	1		36,692
Schall & Donohoe	1		32,137
J. Bartholomew, Jr	1		31,902
H. Guiterman	1	19,852	31,325
Guiterman & Heebner	1	11,473	
C. L. Goodridge & Co	1		31,444
W. Kendrick & Co	1		31,134
S. Bittenbender & Co	1		31,021
Lawrence, Merkle & Co	1		30,391
E. C. Whittesey & Harris & Williams	1		30,357
Whetstone & Co	1		30,375
B. L. Eshelman	1	24,116	30,234
Eshelman & Co	1	6,118	
Kear & Co	2		26,770
S. E. Griscom & Co	1		26,359
J. E. Wynkoop	1		25,322
Owen, Long & Co	1		24,491
Tremont Coal Co	1		23,531
D. Hoch & Co	1		23,092
G. W. Pomeroy (3 months idle)	1		22,851
E. Bast & Co	1		21,102
Other Shippers			596,139
Total			5,170,085
1868			4,484,849
Increase			685,236
Number of operators, 1869			128
" " " 1868			100
Increase			28
Number of Collieries worked, 1869			148
" " " " 1868			126
Increase			22

Showing an increase of 28 operators, 22 collieries, and 685,236 tons over 1868.

Of the above quantity 74 collieries north of the Broad Mountain furnished 3,207,976 tons, and 74 collieries south of the mountain 1,962,109 tons, making altogether 5,170,085 tons transported over the lateral railroads of the county.

Forty-seven firms with 64 collieries, mined and sent to market 3,529,486 tons, leaving only 1,640,599 tons sent by the remaining 81 operators with 84 collieries.

North of the Broad Mountain the 74 collieries averaged 44,702 tons, and the 74 south averaged 26,514 tons. In 1868 the average of the collieries north of the Broad Mountain was 41,594 tons, and south 28,568 tons.

The largest product of a single colliery in 1869 was from the Philadelphia Coal Co., 119,297 tons. The next largest was from the colliery of Lee, Grant & Co., 90.809 tons. In 1868 the largest product of a single colliery, 129,129, was mined by Repplier, Moodie & Co.

The quantity of coal transported over the Lateral Railroads in Schuylkill county during 1869 was	5,170,085 tons.
Sent to market by railroad and canal	4,848,726 "
Sold in towns, &c., in county	321,359 "

Schuylkill and Susquehanna Railroad Coal Trade.

The following is the quantity of Coal transported over the Schuylkill and Susquehanna Railroad in 1869:

FROM	EAST.	WEST.	TOTAL.		EAST.	WEST.	TOTAL.
Pinegrove	108,473	37,768	146,241	In 1864	191,391	24,534	240,057
Dauphin West	.....	.....	140,784	1863	189,254	48,449	237,703
Auburn do	.....	.....	10,224	1862	146,095	53,842	199 937
				1861	101 523	91,820	193 343
			297.249	1860	94,975	14,718	109,693
In 1863	282,836	40 554	323,890	1859	81,600	19 857	101,457
1867	129,856	27,962	257,669	1858	60,435	43,493	103,928
1866	146,733	21,160	200,437	1857	44,801	37,484	82,285
1865	168,296	18,458	186,754	1856	42,393	34,914	77,307

This road is now owned and worked by the Reading Railroad Company.

Northern Central Railroad.

The following is the coal tonnage of the Northern Central Railroad for the years 1866, 1867, 1868 and 1869, which has been furnished us by Mr. Barry:

	WAY.	BALTIMORE.	TOTAL.
1866	177,954	100,110	278,146
1867	304,567	148,810	453,275
1868	455,345	175,334	630,679
1869	414,665	146,534	561,198

The coal was derived from the following regions:

	1866.	1867.	1868.	1869.
Lykens Valley	62,210	204,639	293,725	282,995
Treverton	31,257	23,457	32,843	15,010
Shamokin	83,089	88,075	123,855	107,750
Lack. & Bl. R. R.	101,608	137,085	180,256	155,443
	278,164	452,275	630,679	561,198

Little Schuylkill Coal Trade.

The following is the quantity of coal transported over the East Mahanoy and Little Schuylkill Railroad for the year ending November 30, 1869, by the different operators:

TAMAQUA REGION.

NAMES OF OPERATORS.	NO. OF COLLIERIES.	TOTAL TONS.
E. Borda	2	81,626
George Ormrod	1	14,478
Whetstone & Co.	1	28,497
Moss & Co.	1	9,079
James Glenn & Co	1	6,177
Raabe & Co.	1	14,289
E. Gauyot & Co.	1	13,097
Carter, Borda & Co.	1	6,419
John W. Krell	1	1,201
Evan Cann	1	337
John Randall.	1	547
Bohannan & Larer	1	2,172
Patent Fuel Co	1	144
John Whetstone	1	1,378
From Mahanoy region		414,768
Total		584,722

Pennsylvania Coal Company.

Anthracite Coal mined and forwarded by the Pennsylvania Coal Company, for the Year ending Dec. 31st, 1869:

	FOR YEAR 1869.	TO SAME DATE 1868.
By Railway	947,930 1-20 tons.	924,849 15-20 tons.
" Canal	18,706 18-20 "	29,004 19-20 "
Totals	966,636 19-20 "	953,854 14-20 "
Increase	12,782 5-20 "	

The Delaware, Lackawanna, and Western Railroad Co.

OFFICE OF THE COAL DEPARTMENT,
SCRANTON, PA., January 3d, 1870.

Coal Transported on the Delaware, Lackawanna, and Western Railroad for the Year ending Friday, Dec. 31st. 1869, and for the corresponding time last Year:

	1869. Tons.	Cwt.	1868. Tons.	Cwt.
Shipped North	453,172	18	610,720	11
" South	1,110,815	1	1,118,064	16
Totals	1.563,987	19	1,728,785	7
Decrease	164,897	8		

W. R. STORRS, General Coal Agent.

Delaware and Hudson Canal Company.

Anthracite coal mined and forwarded by the Delaware and Hudson Canal Company for the fiscal year commencing December 11, 1868, and ending with December 31, 1869, was:

Forwarded North	1,502,492 11	
" South	123,899 00	
Total for 1869		1,626,391 11

Production for 1868 was:

Forwarded North	1,521,839 03	
" South	318,842 03	
Total for 1868		1,840,681 06
Decline in 1869		214,289 15

Mines were idle sixteen weeks during the summer of 1869, from a suspension of work by the miners, causing a loss of production of more than 700,000 tons. E. MUSSON, Sup't.

Locust Mountain Coal and Iron Company.

The quantity of Coal sent from the several Collieries of this Company in the year 1869 was as follows:

NAME OF COLLIERY.	WORKED BY	TONS.
Big Mine Run	Taylor, East & Lindsay	55,854.16
Locust Run	G. S. Repplier & Co.	36,873.07
Big Run	Murray, Winlack & Co.	56,023.03
Hazel Dell	R. Gorrell & Co.	88,016.02
Stuartville	W. Montelius	63 567 07
Centralia	J. M. Freck	14.740.15
Total		371,465.10

Amount of Coal Shipped by each Operator in Northumberland County, during the Year 1869.

Compiled expressly for the *Shamokin Herald*, by J. J. JOHN.

	COLLIERIES.	P. & R. R. R.	Lehigh V. R. R.	N. C. R. W.	Z. & V. R. R.	TOTAL, 1869.	TOTAL, 1868.
1	Cameron	196 04		96,962 00		97,158 13	89,359 15
2	Buck Ridge	47,143 07		25,928 19		74,072 06	70,227 18
3	Stuartville	40,121 03		22,647 15		62,768 18	48,602 01
4	Big Mountain			57,328 14		57,328 14	46,797 15
5	Excelsior	47,580 12		8,651 06		56,231 18	51,477 16
6	Coal Ridge	19,918 13		35,105 04		55,023 17	33,500 00
7	Reliance	53,587 18		848 12		54,436 10	35,276 02
8	Locust Gap	35,063 18		14,919 10		49,983 17	58,069 05
9	Enterprise	46,227 00		885 18		47,112 18	55,754 02
10	Greenback	44,773 19		1,256 10		46,029 09	44,071 03
11	Trevorton	27,472 16			18,138 12	45,611 08	38,727 10
12	Bear Valley	28,707 12		10,664 15		39,372 07	47,069 05
13	Henry Clay, No. 1	26,961 00		10,882 05		37,843 05	40,482 14
14	Henry Clay, No. 2	15,138 16		21,763 06		36,902 02	35,376 12
15	Lake Fidler	10,357 10		24,092 08		34,449 18	15,884 13
16	Locust Summit	31,903 17				31,903 17	39,826 13
17	Hickory Swamp	15,218 15				31,576 17	14,327 10
18	Burnside	22,963 16		8,343 18		31,313 14	37,509 04
19	Coal Mountain	823 19	1,882 03	16,358 02		24,893 02	10,363 05
20	Green Mountain	2,721 05		22,187 00		24,908 05	19,101 14
21	Lambert	5,251 03		16,380 09		21,631 12	48,385 13
22	Caledonia		4,726 16	7,765 07		12,491 23	19,993 14
23	Daniel Webster	6,735 05		2,516 09		9,251 14	13,016 10
24	Franklin	5,624 01		196 15		5,820 16	7,243 05
25	Ben Franklin	3,733 18		609 11		4,342 29	19,000 00
26	Frank Gowan	1,952 19		264 12		2,217 11	4,817 06
27	Accommodation	447 01		165 18		612 19	
	Other Collieries	625 01		287 09		1,012 10	
	Total	541,254 18	6,608 19	408,013 10	18,138 12	974,015 19	911,784 18

☞ Collieries numbered according to shipments for 1869. ☜

RECAPITULATION.

Sent East by P. and R. R. R.	541,254 18	
" " L. V. R. R.	6,608 19	
		547,863 17
Sent West by N. C. R. W.	408,013 10	
" " Z. V. R. R.	18,138 12	
		426,152 02
Total, 1869		974.015 19
" 1868		911,784 18
Increase		62,231 01

The following is the quantity of Coal sent over the Shamokin Division of N. C. Railroad by each operator during the year 1869:

NAMES OF COLLIERIES AND LESSEES.	TONS.
Cameron—John Haas & Co.	96,856
Bear Valley—Shamokin & B. V. Coal Co.	18.749
Burnside—S. Bittenbender & Co.	16,452
Henry Clay—Robertson, Guiterman & Co.	10,883
Big Mountain—J. Langdon	57,253
Buck Ridge—May, Patterson & Bro.	26,845
Luke Fidler—Burnside Coal & Iron Co.	34.033
Lambert—T. S. Dewees, Agt.	13,108
Hickory Swamp—Shamokin Coal Co.	31.566
Henry Clay, No. 2—John B. Douty	36,779
Greenback—Robertson, Guiterman & Co.	1,257
Excelsior—Excelsior Coal Mining Co.	8.651
Enterprise—Enterprise Coal Co.	886
Green Mountain—S. Johns & Sons.	18,485
Reliance—Mt. Carmel Locust Mt. Coal Co.	849
Coal Mountain—F. Roads & Co.	27,517
Stuartville—Wm. Montelius	20,252
Daniel Webster—Jas. B. Wingate, Agt.	5.985
Coal Ridge—Coal Ridge Imp. Co.	31,852
Franklin—Reyer & Bro.	610
Bellas—Douty & Kutzner	56
Locust Gap—Graber & Kemble	12,249
Accommodation—Boughner & Shipp.	430
Grant—Bower, Martin & Aucker	93
Clinton—Bechtel, Kulp & Co.	54
Mt. Pleasant—W. A. Richardson & Co.	54
Caledonia	1 614
Total	474.524

The following is the distribution of the Coal carried over the Shamokin Division Northern Central Railway in 1869:

To M. H. Railroad	72,284
To L. Valley Railroad	6.191
To Philadelphia & Erie Railroad	87,362
To Elmira Division	136,128
To Northern C. R. W.	105,142
To Canal at Sunbury	67,416
Total	474.523

Some of the operators in the Shamokin Region only sent a portion of their Coal over the Shamokin Division of the Northern Central Railroad. The Schuylkill, Mount Carmel and Shamokin Regions have become so blended, the Coal being transported over several roads, that it has become almost impossible to give each operator the correct quantities mined—and we therefore separate the trade North and South.

Northumberland County Coal Trade.

Shamokin and Treverton Coal Trade, from its commencement to the present time.

YEAR.	SHAMOKIN.	TREVORTON.	TOTAL.
1839	11,930	....	11,930
1840	15,505	....	15.505
1841	21.463	....	21,463
1842	10,000	....	10,000
1843	10,000	....	10 000
1844	13,087	....	13,087
1845	10.000	....	10,000
1846	12,572	....	12.572
1847	14,904	....	14,904
1848	19,356	....	19,356
1849	19.650	....	19,650
1850	19,921	....	19.921
1851	24,899	....	24,899
1852	25,846	....	25,846
1853	15.500	....	15,500
1854	63,500	....	63,500
1855	116,117	....	116,117
1856	137,406	73,112	210,518
1857	155,806	110,711	266,517
1858	135,793	106,686	242,579
1859	180,753	124,290	305.043
1860	210.108	90,148	300,256
1861	241,451	49,477	290 928
1862	241,642	63,223	304,865
1863	274.936	62,200	337,136
1864	333.478	56.301	389,779
1865	457,162	27.095	484,257
1866	557,161	53 648	610,809
1867	485,697	48,118	533,815
1868	873,057	38.727	911,784
1869	928,404	45,611	974,015
	5,637.204	949,347	6,586,551

RECAPITULATION of Trevorton Coal Shipments for 1869:

1869.	EAST.	WEST.	TOTAL.
January	.....	2,563 02	2,563 02
February	.....	2,040 14	2,040 14
March	.....	2,143 11	2,143 11
April	.....	1,919 07	1,919 07
May	.....	19 06	19 06
June	.....	839 08	859 08
July	4,019 19	2,344 11	6,364 07
August	6,475 14	964 15	7,440 09
September	4.864 16	1,086 12	5,951 08
October	3.580 01	1,199 03	4,779 04
November	7,216 05	1,916 18	9,133 03
December	1,316 04	1,101 05	2,417 09
Total	27,472 16	18,138 12	45,611 08

The Bituminous Market.

The Cumberland Bituminous Coal Trade, during the year, shows an increased demand for the favorite coal, from all quarters. As a steam generator, these coals are probably worth fully one dollar per ton more than any anthracite. Our manufacturers and steamship owners prefer them when they can be had at or about the same price as anthracite. The fact that the prices of Cumberland coal remained fixed during the entire year ($7 25 to $7 50), while anthracite fluctuated between $4 50 and $9 50, greatly increased the demand for the Cumberland coals. Retailers had frequent calls for them, purchasers were well pleased with them, and a heavy and remunerative business was carried on. The agitation of the tariff question, no doubt, did much toward keeping the price of Cumberland coal uniform, and caused the managers of the various large mining corporations engaged in their production not to attempt to follow other coals in their upward tendency.

Cumberland Coal Trade.

We have received from Mr. C. Slack, of Mount Savage, Maryland, full and interesting tabular statistics of the Cumberland coal trade during the year 1869. The statements have been made up from information received from official sources. We give the following extract:

DETAILS OF PRODUCTION OF 1869.

NAME OF COMPANY OR MINE.	1869. To B. & O. R. R. Tons.	To C. & O. Can. Tons.	Local. Tons.	Total. Tons.	COMPARED WITH 1868. Inc. Tons.	Dec. Tons.
Consolidation Coal Co..	121,224	101 645	33,921	256,790	78,313	.....
Central Coal M. & M. Co.	114 369	128.989	.....	243,298	.....	32,397
American Coal Com....	91,771	128,225	.	219,996	71,474	.....
Cumb. Coal & Iron Co..	99,027	78 908	30.990	208 925	50,661	.....
Hampshire & Balt. C. Co.	109 548	47,727	1.278	158,553	4,761	.....
Borden Mining Comp'y.	81.045	71.590	954	153,589	46,729	.....
Geo.'s Creek C. & I. Co...	100,310	32.152	16	132,479	54 377	.....
Piedmont Coal & Iron Co	92,021	.....	.....	92,021	45,762	.....
Atlantic & Geo. C. Co..	79,185	.....	.....	79.185	47,217	.....
Potomac Coal Company.	67,458	.....	.....	67,458	12,497	.....
Franklin Coal Company.	59.487	.....	.....	59,487	41.732	.....
Midlothian Coal Co	23.179	26 320	.....	49 499	42 230	.....
Swanton Mining Com'y.	48,334	.....	.....	48 334	25,872	.....
Maryland Coal Co.....	31,322	13,018	.....	44 340	44,340	.....
Cooke Mines	8.782	23,472	529	32.783	11.661	.....
Barton Coal Company..	32,720	.....	.....	32,720	26,370	.....
Savage Mountain Co....	2,936	104	.....	3.040	335	.....
George's Creek Mng Co.	172	.....	.....	172	.....	39
New Hope Mines	.....	.....	.....	.....	.....	9,749
National Coal Company.	.. ..	.....	.....	.....	.....	5,199
	1,162,830	652,151	67,688	1,882,669	599,601	47,375
					47,375	
					552,226	Inc.

RECAPITULATION.

By Cumberland and Pennsylvania Railroad to Baltimore and Ohio Railroad	981,297	
By Cumberland and Pennsylvania Railroad to Chesapeake and Ohio Canal	573,243	
By Cumberland and Pennsylvania Railroad to Local	35,480	
		1,590,020
By Cumberland Coal and Iron Co.'s Railroad to Baltimore and Ohio Railroad	99,027	
By Cumberland Coal and Iron Co.'s Railroad to Chesapeake and Ohio Canal	78,908	
By Cumberland Coal and Iron Company's Railroad to Local	30.990	
		208,925
By Hampshire and Baltimore Co., (Va. Mines,) to Baltimore and Ohio Railroad	82,506	
Same to local	1,218	
		83,724
Total tons in 1869		1,882,669

COAL SHIPMENTS SINCE 1865.

YEARS.	Total by Baltimore & Ohio Railroad. Tons.	Total by Chesapeake & Ohio Canal. Tons.	Aggregate. Tons.
1865	560,293	343,202	903,495
1866	736,153	343,178	1.079.331
1867	735,669	458 153	1,193,822
1868	848,118	482,325	1,330.443
1869	*1,230 518	652,151	1,882 669
Total	10,066,465	4,769.521	14,835 986

The above statistics of the production of the Cumberland (Md.) coal region for the year 1869, show that during that period 1 882 679 tons were mined, an increase of 552,226 tons over 1868. Of this quantity 1,162,830 tons were sent to market by the Baltimore and Ohio railroad, and 652 151 tons by the Chesapeake and Ohio canal, and 67,688 were consumed along the lines of transportation. The aggregate production of the mines from 1842 to 1869 inclusive, amounts to 14,835,986 tons, of which 8 475 609 tons were carried by the Cumberland and Pennsylvania railroad, 3,234,881 by the Cumberland Coal and Iron Company's railroad, 2,190,673 by the George's Creek, and 884,823 by the Hampshire and Baltimore Company. These coal roads are feeders of the Baltimore and Ohio railroad and of the Chesapeake and Ohio canal.

* Includes 79,100 tons used on line of Cumberland Pennsylvania Railroad, chiefly at Mount Savage Iron Works—the line of the Cumberland Coal and Iron Company's Road—and the local consumption at Piedmont and Cumberland; also, 177,151 tons used by the Baltimore and Ohio Railroad Company.

The Despard Coal Company of West Virginia mined and shipped over the Baltimore and Ohio Railroad 77,263 tons gas coal.

Broad Top Semi-Bituminous Coal Trade.

Statement exhibiting the amount of Coal mined and sent to Market in 1869, from the Collieries of the Broad Top Semi-Bituminous Coal Region, with present facilities and estimated capacity for 1870 furnished by JOHN FULTON, Mining Engineer, and ROBT. W. JACOB, Esq.

NAME OF COLLIERY.	NAME OF PROPRIETOR.	NAME OF OPERATOR.	Tons. Net. Sent to Market in 1869.	No. of Miners at work.	No. of other Workmen	No. of Miners' Houses at Colliery.	Galleries or Rms in Wking Order.	Average Capa'y in Tns. per day.	Estimated Value of Colliery Improvements & Fixtures.
Coalmont,	Runyon, Meyers & Co.,	Levi Evens,	3,652 14	9	2	1	6	40	$10,000
Cumberland,	H. & B. T. R. R. Co.,	Reakirt, Bros. & Co.,	53 14	..	..	..	..	..	..
Crawford,	do	John Whitehead & Co.,	16,364 14	85	40	11	14	125	40,000
Powelton,	Powelton Coal & Iron Co.	Powelton Coal & Iron Co.	61,771 15	85	5	17	6	125	40,000
Bornet,	do	W. A. Orbison,	17,692 18	47	6	5	19	125	40,000
Bornet Plane,	Orbison Dorris & Co.,	R. B. Wigton,	86,767 12	70	9	12	7	125	40,000
Dudley Slope,	Wood & Bacon,	J. M. Bacon,	36,755 14	38	5	5	6	125	40,000
Blair,	David Blair,	David Blair,	17 835 14	32	4	2	6	125	40,000
Union,	Reakirt Bros. & Co.	Reakirt Bros. & Co.	6,130 14	12	2	1	6	125	40,000
Mooredale	do	do	13,761 14	44	4	2	6	125	40,000
Broad Top,	Semi-Anthracite Coal Co.	George Mears,	30,337 14	47	6	2	6	125	40,000
Carbon,	Fisher & Sons	do	6,529 14	10	2	1	6	125	40,000
Cook,	Rot well Wilson,	do	6,698 14	16	4	1	6	125	40,000
Mansion,	B. T. Improvement Co.	J. W. Ammerman & Co.	3,926 14	14	2	1	6	125	40,000
Mount Equity,	Fisher & Sons,	J. N. Sheets,	9,432 14	19	4	1	7	125	40,000
Duvall Shaft,	Riddlesburg Cl. & Iron. Co.	Jenkins & Heading,	40,680 14	51	7	2	6	125	40,000
Mount Eagle,	Rot well Wilson,	Kemble Coal & Iron Co.	23,386 14	48	9	4	7	125	40,000
Cunard,	R. B. Wigton,	R. B. Wigton,	14,034 14	37	6	2	6	125	40,000
Mount Eagle,	R. ed. Wilson & Co.	Richard Langdon,	8,000 14	40	5	2	6	125	40,000
Scott,	John Scott.	do	14,174 14	14	3	1	6	125	40,000
Edge Hill,	Rot well Wilson,	Caldwell & Co.,	11,793 14	14	3	1	6	125	40,000
Delaware,	do	do do	.....	..	..	..	..	..	..
North Point,	do	John Taylor & Co	.....	..	..	..	..	..	..
Fulton,	do	do do	.....	..	..	..	..	..	..
	Total in 1869		398,878 14	693	130	387	578	3,175	$760,000
	Total shipments in 1868		290,993 ..						
	Increase		.....						

Total tons in 1869.....1,882,669

The following table exhibits the quantity of Bituminous coal mined and sent to tide-water in 1869:

Baltimore and Ohio Railroad	1,230,518
Chesapeake and Ohio Canal	652,151
Huntingdon and Broad Top Railroad	360,778
Lehigh Valley Railroad	21,237
Harrisburgh and Dauphin	350,000
Total, 1869	2,614.684
Total, 1868	1,861,373
Increase, 1869	753,311

Imports and Exports of Coal for the year 1869.

[Specially forwarded to the ENGINEERING AND MINING JOURNAL, by FRANCIS A. WALKER, Deputy Commissioner, Bureau of Statistics, Treasury Dep.]

The following table exhibits the amount of Coal Imported and Exported during 1869:

BY COUNTRIES.

COUNTRIES.	IMPORTS. Tons.	IMPORTS. Dollars.	EXPORTS. Tons.	EXPORTS. Dollars.
England	83,014	303,445	....	....
Scotland	5,608	18,115	....	....
Ireland	302	743	....	....
Canada	257,185	630 571	173,452	951,761
Other British N. A. Possessions	30 560	128,017	353	2,265
British West Indies	109	586	1,541	8.165
British Possessions in Africa	....	....	585	3 265
British East Indies	9	60	....	....
Australia	42,034	113,241	....	....
Hamburg	232	1,097	....	....
French Possessions in America	49	183	87	815
All other French Possessions	137	481	....	....
Cuba	....	....	10,643	64,510
Porto Rico	....	....	32	230
Brazil	11	20	2,013	8,952
Mexico	7	28	11.981	70,055
Dutch East Indies	....	....	2,999	15,870
Dutch West Indies	....	....	39	307
China	....	....	21,511	117,744
Japan	....	....	16 367	88,599
Uruguay	17	73	201	1,005
Venezuela	....	....	853	3,851
United States of Columbia	....	....	32 732	182,918
Chili	4 330	18,518	461	4 009
Central American States	....	....	1 995	11 979
Haiwaiian Islands	....	....	416	2,911
Hayti	....	....	1,937	9,709
Denmark and Danish West Indies	20	49	1,077	3 921
All other Portuguese Possessions	....	....	44	392
All other Countries and Ports	204	1,020	....	....
Totals	423,810	$1,216.247	233,783	$1,553,115

Imports and Exports of Coal.—Continued.

DISTRICTS.	IMPORTS. Tons.	Dollars.	EXPORTS. Tons.	Dollars.
Alaska, Alaska	423	3,203	....	....
Alexandria, Virginia	....	....	201	1,005
Baltimore, Maryland	....	....	13,759	71,699
Bangor, Maine	585	1 023	....	....
Bath, "	1,106	1,936	....	....
Boston and Charlestown, Mass	130.130	366,679	701	7.176
Buffalo Creek, New York	....	....	3,769	29,318
Cape Vincent, "	4	31	....	....
Champlain, "	38	251	16 530	103,809
Charleston, South Carolina	838	3,507	....	....
Cuyahoga, Ohio	....	....	70,542	318 963
Detroit, Michigan	2	12	250	2 452
Erie, Pennsylvania	....	....	25 804	133.552
Fairfield, Connecticut	933	1.661	....	....
Georgetown, D. C., District Columbia	366	4,127	....	....
Genesee, New York	2	10	....	....
Gloucester, Massachusetts	655	1,205	....	....
Huron, Michigan	1	6	100	600
Machias, Maine	....	....	1	10
Marblehead, Massachusetts	267	478	....	....
Mobile, Alabama	15	56	....	....
Newburyport, Massachusetts	214	375	....	....
Newark, New Jersey	....	....	2 346	11,841
New London, Connecticut	455	760	2	15
New Bedford, Massachusetts	1,935	5.323	475	3 090
New Haven, Connecticut	5,131	18,300	....	....
New Orleans, Louisiana	643	2,717	230	1,376
Newport, Rhode Island	391	648	....	....
New York, New York	144.787	394,131	66,264	376,277
Oswego, "	....	....	45,740	293,862
Oswegatchie, "	12	98	4	24
Oregon, Oregon	2 034	13,355	....	....
Passamaquoddy, Maine	7,177	16,533	....	....
Perth Amboy, New Jersey	....	....	7,027	44,199
Pensacola, Florida	30	90	....	....
Philadelphia, Pennsylvania	1,398	2 536	29,607	147,217
Portland and Falmouth, Maine	14,905	36,150	....	....
Portsmouth, New Hampshire	4 464	8,037	....	....
Providence, Rhode Island	11,085	25,216	....	....
Puget's Sound, Washington Territory	21	232	....	....
Salem and Beverley, Massachusetts	6 155	10,128	....	....
San Francisco, California	82 872	284,992	429	5,870
Savannah, Georgia	3 815	9,001	....	....
Texas, Texas	968	2.9.2	....	....
Vermont, Vermont	83	518	102	759
totals	423,810	$1 216 247	283.783	$1 553,115

☞ The total amount of Coal re-exported was 4 tons, valued at $92.

The trade in imported coals has been l ght for house and gas purposes. The cannel coals are little used in this country now in comparison to past years, and our American gas coals are quickly supe seding the Nova Scotia products, and particularly during the year just ended have won for themselves enviable reputation. The Despard gas coals, recommended and used by our leading companies, have mined and sent to market during 1850, 77,264 tons—a handsome increase over last year.

The total quantity of Coal sold at Auction, in 1869, was 670,600 tons, average $5 57; total amount realized $3,781,900. No sales in May, June or July.

Scranton Auction Sales, 1869.

We publish below a table of the average prices obtained at each of the Scranton auction sales during the year 1869. As the amounts of the various sizes at each sale differed widely, one size in some instances amounting to as much as a third of the whole quantity disposed of, it can hardly be taken as a true exhibit; but as we publish at the same time the number of tons of each size sold, as well as the total quantity sold, it will be easy to see how much of the average should be credited to each size. It will be seen that any small quantity sold at a given time at a high price would have the same effect upon the general average as a very large amount sold at a lower figure.

	JAN. 27.		FEB. 24.		MARCH 31.		APRIL 28.		AUG. 31.	
	TONS.	AV. PRICES.	TONS.	AV. PRICES.	TONS.	AV. PRICES.	TONS.	AV. PRICES.	TONS.	AV. PRICES.
Lump	6,000	$1 30	8,000	$1 37	12,000	$4 33	10,000	$4 72	10,000	$6 41
Steamer	10,000	4 70	13,000	4 32	14,000	4 45	12,000	4 63	12,000	6 52
Grate	12,000	4 82	16,000	4 35	15,000	4 47	16,000	4 67	13,000	6 56
Egg	4,000	4 60	8,000	4 24	9,000	4 62	10,000	4 76	10,000	6 90
Stove	26,000	4 29	25,000	4 55	20,000	4 91	22,000	5 14	25,000	7 09
Chestnut	8,000	4 58	10,000	3 79	10,000	4 37	10,000	4 60	25,000	6 42
Totals and general averages	60,000	$5 18	80,000	$4 33	80,000	$4 56	80,000	$4 79	80,000	$6 74

	SEPT. 29.		OCT. 27.		NOV. 24.		DEC. 29.	
	TONS.	AV. PRICES.	TONS.	AV. PRICES.	TONS.	AV. PRICES.	TONS.	AV. PRICES.
Lump	10,000	$6 20	10,000	$5 36	10,000	$4 18	5,000	$4 32
Steamer	12,000	6 20	15,000	5 28	15,000	4 03	10,000	4 45
Grate	13,000	6 53	15,000	6 30	15,000	4 31	10,000	5 08
Egg	10,000	6 91	8,000	6 86	8,000	5 24	10,000	5 32
Stove	25,000	7 42	15,000	8 15	12,000	7 20	25,000	6 01
Chestnut	10,000	6 20	10,000	5 96	10,000	4 20	10,000	4 21
Totals and general averages	80,000	$6 76	70,000	$6 26	70,000	$4 83	70,000	$5 14

RECAPITULATION OF AVERAGE PRICES.	
Jan.	$5 18
Feb.	4 33
March	4 56
April	4 79
May	5 14
June	5 57
July	6 74
Aug.	6 76
Sept.	6 76
Oct.	6 26
Nov.	4 83
Dec.	5 14

Credit.

In drawing to a conclusion our review of the trade, we desire to return thanks to our many kind friends in the various coal regions, who have taken much pains to furnish us complete reports, also to give credit to the Pottsville *Miners' Journal*, the most able of our contemporaries; also to the *United States Railroad and Mining Register* of Philadelphia, Shamokin *Herald*, and Mauch Chunk *Democrat*, for much information taken from their columns.

The Broad Top Coal and Ore Region.

The Kemble Coal and Iron Company, of which the Hon. Wm. Kelly, of New York, is President, having proven the use of Broad Top Coke as fuel in the manufacture of iron at their large new furnace at Riddlesburg, in operation since the 3d of July last, have decided to build another stack of the same size, the work upon which will be commenced at once. This furnace will, like the first one, be built in the most substantial manner, with the latest and best improvements.

The miners of the Broad Top Region, who have been on a strike since the 10th ult., resumed work Feb. 1st at 60 cents per ton.

The Roads of New York Central Park.

CONTINUED FROM PAGE 81.

gutter, but at a considerably increased cost. Where a formal outline is desirable, the cost not being an objection, such a a gutter would be very suitable. It is less expensive than the gutter composed, throughout, of blue-stone, (as the first sample,) and, excepting the difference in the smoothness of surface, it is preferable to it. The curb-stones should not be less than two and a half feet in depth.

A gutter composed of small quarry-stones, set on edge, was the last form resorted to, and this has since been generally adopted for the Park roads. It was first tried with a binding of blue-stone (not raised as a curb) along the outside, the upper edges of which were flush with and formed a part of the concave surface of the gutter, (FIG. 4.) The object of the blue-stone was, mainly, to prevent the grass along the borders from encroaching upon the gutter, and to give a more regular and distinct edging to the gutter than could be done with small or undressed quarry-stones. It was found, however, that these advantages did not compensate for the extra expense of the blue-stone, and besides, there was a practical difficulty in setting the blue-stone in connection with the quarry-stones of irregular sizes, so as to make close and substantial work, and the use of the blue-stone in this form was therefore discontinued, the final form being as shown by FIG. 5. The quarry-stones for these gutters were prepared at the quarries or places on the Park where rock was excavated, in grading the roads or for other purposes. The blocks of stone blasted out, were broken up by men who were practiced in the work, and were reduced by rough hammering, to the forms and sizes prescribed for the gutters. The specification for this part of the work, requires the stones to be, "from eight to twelve inches deep, and not less than three inches thick, the lengths (longitudinally to the gutters) being whatever the stones will work to, not less than six inches nor generally more than fifteen inches; the dressing to be sufficient to square the stones roughly, so that they will fit together compactly in the work, the wedge-shaped form to be avoided, and a fair bearing surface given to the lower ends of the stones; the tops of the stones, if sharply pointed, also to be knocked off. Only sound and hard stones to be used."

Previously to setting the stones, a bed is formed to receive them of gravel or sand, or fine quarry chips and rubble well rammed. The gutters vary in width, according to circumstances, the width of the roads, nature of the drainage, etc., from eighteen to thirty-six inches, generally from twenty-four to thirty inches; the depression in the middle being from two to four inches, and proportioned to the width. Stones having the greatest depth (not less than twelve inches) are selected for the exterior edges of the gutter, and are all set with care by practical pavers, so as to conform truly to the grade-line of the road and to the required concave shape. The exterior stones are protected and kept in place by ramming gravel or quarry chips alongside as the work proceeds. The road material is subsequently added on the roadside of the gutter, and on the opposite side the earth border is closed up to it. The gutter is firmly settled into its bed by the use of rammers, and the interstices between the stones are thoroughly filled with clean gravel or fine stone chips.

The cost of this kind of gutter does not vary materially from that of the cobble-stone gutter with rustic curb. The surface is not as smooth or as agreeable to drive over as the sample of cobble-stone gutter that was previously made, and is naturally avoided by carriages (as it is desirable that all gutters should be,) except when the road is over-crowded. The absence of a raised curb, and the tendency of the grass, along the low border, to run into the inequalities of the stones at the edge of the gutter, give the general effect to the road of blending with the adjoining sward without a very decided line of demarkation. This would be not an inappropriate feature for roads in some situations, where they are not liable to be over-crowded; but for Park roads, for the reasons before stated, the stronger outline of a substantial curb, similar to the two forms first recommended, (FIGS. 1 and 2) is considered preferable.

The quarry-stone gutter is substantial and durable, and improves in smoothness with use. Where suitable cobble or field-stones cannot conveniently be had, and in cases where such stones would contrast too strongly in color with the road material to be agreeable, the quarry-stones would be recommended. The question of cost, however, under ordinary circumstances, would be regarded as sufficient to govern the selection of the different kinds of stone.

Review of the Petroleum Trade of 1869.

AN elaborate review of the petroleum trade of 1869 appears in the Titusville *Herald*. The general conclusions are to the effect that there has been a substantial and gratifying increase in the production, with a corresponding enlargemant in the consumption, so that the supply and demand have been nearer equal than during any preceding year. The *Herald* says:

"The means by which petroleum is produced, although not materially changed, have undergone many alterations for the better, both in the Pennsylvania district and elsewhere, which have made the business more certain, enhanced the value of producing lands, and made the profits on the outlay of capital larger. But it has been in the methods of refining and deodorizing that the most marked improvements, because greater in their results, have been made. Principal among these was the discovery of a deodorizing and refining process, or processes, for Canadian oil, which for years previous had been an almost worthless product on account of the excessively offensive odor which it emitted. The processes have been very successfully applied, and a complete revolution has been worked in the Canadian oil trade. About 400,000 barrels of stock, which had accumulated during previous years, together with a product which, in 1869, reached about 200,000 barrels, has been brought into the markets of the world. The refined Canadian oil has been introduced in Europe, and has been found almost equal to any other oil. In the United States the treatment-processes and the size and shape of the stills have greatly improved, and the quantity of burning oil obtained from crude oil has been materially enlarged.

"The price of petroleum has ruled higher during 1869 than in any one of the three previous years, and those engaged in its production have received larger profits in comparison with the capital employed, than during any previous year. The profits of the refiners and dealers have been fair, but very much less than those of the class first mentioned. Speculation has been pursued on a colossal scale, and prices underwent great and violent fluctuations, but, notwithstanding, the year closed with a much smaller number of failures than usual, and, on the whole, the year was singularly exempt from any of importance.

"The largest wells struck during the year did not produce more than two hundred and fifty or three hundred barrels each daily. Of these latter there were in all but four. At the close of 1869 there was only one well, the daily yield of which reached two hundred barrels, and but about thirty which produced fifty to one hundred barrels daily.

"The following shows the daily average product of the Pennsylvania oil district during the months indicated:

	BARRELS. 1869.	1868.	1867.		BARRELS. 1869.	1868.	1867.
January	10.192	9,700	....	July	11,697	10.698	....
February	9,767	9,200	....	August	12.157	11,981	....
March	9,791	8.621	....	September	12,645	11,033	9,700
April	11,067	8,837	....	October	13,071	10,133	9,600
May	10,153	9.700	....	November	13,317	10,275	9,800
June	11,334	10,102	....	December	12,844	9,737	10,400

"The figures representing the daily product of the last four months of 1867 are estimated, but for 1868 and 1869 the figures were obtained from shipments from, and differences in, stocks in the district, and are given above as they appeared in our monthly reports.

"The annexed is a recapitulation of the product of Pennsylvania since 1859, the year in which petroleum was first produced by means of artesian wells:

PRODUCTION IN	BARRELS.	PRODUCTION IN	BARRELS.
1859	82 000	1865	2,497,700
1860	500,000	1866	3.597,700
1861	2,113.600	1867	3,347,900
1862	3.056,600	1868	3,715,700
1863	2 611,300	1869	4,215,100
1864	2,116,100		
Total barrels	27,853,100.		

"The production during 1869 has, it is seen, exceeded that of any previous year, and swells the grand aggregate to nearly twenty-eight million barrels.

"The production of the burning-oil in the Ohio and West Virginia oil districts in 1869 was, we learn from trustworthy sources, fully 1,000 barrels daily, or 365,000 for the year. About two-thirds of this quantity was produced in West Virginia. The yield of lubricating oil in the same State did not greatly exceed 100 barrels daily.

"In Canada the yield averaged about 4,000 barrels per week, and aggregated about 210,000 barrels.

"The Kentucky oil region produced about 75 barrels daily, or a total of 27,000 barrels.

"In Montana and California, and in Peru, South America, oil was produced, but in unimportant quantities.

"The following is a recapitulation of the production in America in 1868 and 1869:

		1869. bbls.	1868. bbls.
Production of	Pennsylvania	4,215,000	3,715,000
Do.	W. Va. and Ohio	365,000	125,000
Do.	Canada	310.000	100,000
Do.	Kentucky	27,000	25,000
Total barrels		4,917,000	3,965,000

"The production in Canada and Kentucky in 1868 is estimated. The increase in the total yield in America during 1869 was, it will be seen, about 750,000 barrels, or about nineteen per cent.

"The stock in the United States of crude, or its equivalent, on January 1st, 1870, was about 880,000 barrels, or 180,000 in excess of that on hand July 1st, 1869, about 90,000 in excess of that on hand January 1st, 1869, and about 200,000 less than on January 1st, 1868."

Montana.

A Helena stampeder thus writes from Missoula, Dec. 23, after having just seen a man from the mines, who is a miner, and the first one that gives discouraging news. He says: "To-day, during a ride of forty-three miles, I have met some twenty miners (Bearton boys) who were wild with excitement over the richness of Cedar and tributary gulches; but this one man (Smith, from Gold creek) says that 'the main gulch is narrow, and, if it pays as well as represented, will not yield more than $7,000 per claim, and easily worked in one season. Two towns are laid out, and all the lots taken—in fact the whole country is claimed up.' So runs his account. I start from here in the morning. A heavy snow has fallen over the whole valley, making excellent sleighing, but heavy travelling for horses. A few days and you will hear something definite."

BUSINESS AND PERSONAL.

[*Short notices in this column fifty cents per line each insertion.*]

IRON AND STEEL MANUFACTURE.—CLAIM OF PATENT No. 97,827 in the manufacture of Iron and Steel, subjecting the mass of molten metal to the action of hydrogen gas alone, forced up through the mass in combination with a current or currents of atmospheric air or oxygen, introduced over the molten metal within a chamber of reflecting character, producing combustion of the carburretted hydrogen, phosphuretted hydrogen, &c., above the metal substantially as and for the purpose specified. WILLIAM ENNIS, Patentee and owner of this process, wishes to call the attention of manufacturers to the above claim. WILLIAM ENNIS,
jan11-1m Thirty-ninth street, north of Bridge street, Philadelphia.

GLYNN'S ANTI-INCRUSTATION FOR STEAM BOILERS.—The only reliable article for removing and preventing incrustation No foaming, and does not attack metals of boilers. Liberal terms to agents. C. D. FREDRICKS,
Dec. 21, tf. 587 Broadway, New York.

MARKET REVIEW.

The Coal Trade.

NEW YORK, Feb. 4th, 1870.

WHOLESALE.—There is more buoyancy in the trade this week, although the sales have not been heavy. Purchasers realize that coal has nearly touched bottom, and those who have the room and capital are looking about for odd lots to lay up. There is not enough Schuylkill coal offered to guarantee quotations. Lehigh is selling at from $4 50 to $5 00 at Elizabethport, and at Wilkesbarre a shade under these figures. With the present rates of transportation these figures cannot be reduced except in effect to bring about a stoppage. The present rates of transportation are $2 35 from Mauch Chunk, deducting which amount from $5 00, it leaves $2 65 per ton for coal at the mouth of the mine, from which must be paid 30 or 50 cents royalty to owner of the property. The necessary expenses for carrying on operations must next be allowed for, and it is then plainly discernible how coal cannot be afforded for $5 per ton.

We are at, the present writing, some 200,000 tons in excess of last year's production on Anthracite coal alone. Last year we stood in about the same position compared with 1868, and our readers are no doubt well posted as to the course taken last year by the trade to regulate itself—a strike of some ten weeks' duration. The stock of coal on hand in this market is about 150,000 tons, and we think, at the first indications of a turn out, this amount will be but as a drop in the bucket. The improved state of the market, reported above, is greatly due to a strike which took place during the past week among the miners of the Wilkesbarre Coal and Iron Company, at Wilkesbarre, Pa., and it is reported that much dissatisfaction generally exists throughout the entire region. There are several reasons given for the above strike; some claim that it is for the eight hour system, others that the terms of the basis are unsatisfactory, now that coal has fallen to such a low figure. It makes no difference anyhow; the most trivial excuses, as a tardiness in paying the men off one or two days, and such like, have often been used as an excuse to precipitate a strike, and will be again.

We therefore feel called upon to caution dealers to look to their interests, and we would advise those in immediate want not to hesitate in buying.

Foreign coals are a trifle in advance of our last quotations, say from $1 to $2 per ton. Gas coals are very quiet, nothing doing, as the winter's stock is not yet consumed, and trade does not generally show much activity before the opening of navigation.

RETAIL.—Trade has been quite active, the winter weather of the past few days stirring up the demand. The Pennsylvania Coal Company have reduced the price of their coal at their several yards in this city and Brooklyn to $6 for Egg, $6 50 for Stove, and $5 50 for Chestnut, delivered.

FREIGHTS—Are very low. All the Sound and river ports are open. We quote New Haven, $1 00, Bridgeport, $1 00, Boston, $2 00.

Anthracite Coal Trade for 1869 and 1870.

The following table exhibits the quantity of Anthracite Coal passing over the following routes of transportation for the week ending January 23, 1870, compared with week ending January 29, 1869.

COMPANIES.	1869. WEEK.	1869. TOTAL.	1870. WEEK.	1870. TOTAL.
*Phila. & Reading R.R	45,874	321,3 8	40,345	309,500
†Schuylkill Canal				
Lehigh Valley R. R.	42,981	322,512	47,780	441,313
Lehigh and Sus. R. R.	19,756	78,671	23,932	81,9 3
†Lehigh Canal				
Scranton North	9,178	30,8'5	11,7-7	48,873
" South	2,,513	90,582	36,377	124,52
Penn. Coal Co., rail	16,5.5	64,523	18,83	72,890
† " " canal				
Del. and Hudson, rail, N.			13,9	53,646
" " " south			3,446	8,737
Delaware & Hud. Can. N				
" " " S.				
Shamokin	9,443	28 612	4,541	20,617
Trevorton	136	2,157		1,781
Short Mountain	53	3,306		
Lykens Valley Coal Co.	3.6	3,155		
†Wyoming South				
† " North				
P. N. Y. C. & R. R. Co.			5,860	32 221
Williamstown, Co'y	429	12,791	2,403	3.6.9
Total	167,741	98,464	211,267	1,199,633
1870			167,741	9 7,464
Increase week and year.			43,519	202,169

* Less coal transported for Company's use and Bituminous coal.
† Closed for the Season.

Bituminous Coal Trade, 1869 and 1870.

The following table exhibits the quantity of Bituminous Coal passing over the following routes of Transportation for the week ending Jan. 22, 1870, compared with week ending Jan. 23, 1869.

COMPANIES.	1869. Week.	1869. Year.	1870. Week.	1870. Year.
B. & O. R. R.			1,967	4 035
C. & O. Canal				
H. & B. T. R. R.	7,190	24,085	2.120	10.5?4
Harrisburg & D			4,2:3	53,174
L. V. R. R.		552		2,559
P. & N.Y. C. & R. Co.			2,625	28 3?6
	7,190	25,237	10,925	99,268

Cumberland Coal Trade.

B. & O. RAILROAD.

The shipments over the Baltimore & Ohio Railroad for the week ending Jan. 29, 1870, were as follows:

From Georges Creek via Piedmont.	Tons.
Consolidation Co	350 16
Borden Co.	126 09
Midlothian Co.	367 03
Midland Co.	104 12
From Eckhart R. R.	
C. C. & I. Co.	1.017 15
	1,966 15
Previously	2,668 00
Total	4,634 15

Harrisburgh and Dauphin Coal Trade.

The following is the amount of Bituminous Coal transported via the P. and R. R. for the week ending Jan. 27, 1870:

	Tons.
For week	4.213 06
Previously this year	48,960 19
Total	53,174 05

Schuylkill Coal Trade.

Report of Coal transported via the P. and R. R. for the week ending Jan. 27, 1870—less coal carried for Company's use, and Bituminous Coal:

For week	40,346 07
Previously this year	309,490 18
Total	349,846 05
Same time last year	3.1,338 00
Decrease	28,508 05
Amount sent same week 1869	45 874 00

Report of coal transported on the Philadelphia and Reading Railroad for the week ending Thursday, January 27, 1870:

From St. Clair	26,7-8 16
" Port Carbon	4,317 05
" Pottsville	:90 07
" Schuylkill Haven	2.244 11
" Auburn	788 15
" Port Clinton	5,2:6 1?
" Allentown and Alburtis	4) 15
" Harrisburgh and Dauphin	4,213 06
Total paying freight	44 553 13
Coal for Company's use	2,617 08
Total for week	47,117 01
To same time last year	3.5,794 12
Total	422,971 13
To same time last year	331,153 19

Report of Coal Transported over Lehigh and Susquehanna Railroad.

Week ending January 23, 1870—Compared with same time last year.

WHERE SHIPPED FROM	WEEK, 1870. tons cwt	WEEK, 1?6?. tons cwt	YEAR. 1870. tons cwt.	YEAR. 1?69. tons cwt
Wyoming Region	2044? 09	1130 16	5866.9 05	4?081 12
Upper Lehigh Region	807 18	3 20 08	2557 19	12?:0 15
Hazleton Region	55 01	274 07	418 14	934 18
Mauch Chunk Region	462 00	4?55 16	20.67 11	18233 14
Totals	5932 08	19756 05	81903 07	78?7.9
Increase	6176 03		3232 08	
Decrease				
DISTRIBUTION.				
Forwarded East of Mch Chunk by Rail	25486 00	17681 06	79161 17	72613 08
Delivered at and above Mauch Chunk	374 03	971 16	2173 17	2:33 03
Delived to L. & B. R. R.at PlymouthBridge	72 05	431 00	568 09	2030 10
L. V. R. R. at Sguar N.		6?2 03		1193 12
Totals	25932 08	19756 0	81903 07	78670 19
Of the above there was from Compay's Mines.	5173 10	4850 16	23776 18	19263 14
Increase	323 14		5513 04	
Decrease				

Report of Coal Transported over Lehigh Valley Railroad

For the week ending January 29, 1870, and previously this season, compared with same time last year:

WHERE SHIPPED FROM.	WEEK. Tons. Cwt.	PREVI'Y. Tons. Cwt	TOTAL. Tons. Cwt.
Total Wyoming	12,167 18	81,149 05	93.317 03
" Hazleton	23 3 1 09	1?4,332 09	216 693 18
" Upper Lehigh	56 19		56 19
" Beaver Meadow	8,546 10	72,865 17	81,512 17
" Mahanoy	4,611 17	44,959 06	49,571 03
" Mauch Chunk	75 13	2:6 09	562 02
Total Anthracite	47,780 01	393,533 06	411,313 07
Bituminous Coal recv'd from Cata. R. R.			
N. C. R. R.			
E. P. R. R.		2,559 00	2,559 00
P. & N.Y. C. & R.R. Co			
Fall Creek			
Schroeder			
Towanda			
Total by rail and canal	47,780 01	396,092 06	443,872 07
Same time last year	43 233 13	290,4 3 18	333 677 17
Increase	4.5.6 08	105,668 08	110,194 16
Decrease			
Forwarded East from M'h Chunk by rail	43,521 02	356,260 15	396,781 17
Same time last year	40.2 6 09	272,453 09	312,7?9 18
Increase	234 13	13,807 06	81,041 19

RECAPITULATION.

Forwarded East from M'h Chunk by rail	40,521 02	356,260 15	396,781 17
To N. C. R. R., at Mount Carmel		115 00	115 00
Forwarded North from L. & B. Junction	5,867 00	25,951 09	31,818 18
To L. & S. R. R. at Packerton for rail	32 15	799 05	832 00
Delivered at M'h Chunk	26 02	199 02	215 04
Delivered on line of road above Mauch Chunk	254 12	1,835 16	2,090 08
Delivered above M. Chunk for use of L. V. R.R.	1,078 01	7,723 10	8,801 11
To L. & S. R.R., at P'n Hav., for railroad			
Do for canal			
At M.Chunk for canal		655 09	655 09
Total Anthracite	47,780 01	393 533 06	441.313 07
Bituminous Coal		2 559 00	2,559 00
Total all kinds	47,780 01	396,092 06	443,872 07

Delaware and Hudson Canal Company.

PROVIDENCE, PA., Jan. 31, 1870.

Coal mined and forwarded by the Delaware and Hudson Canal Company, for the week ending Saturday, January 29, 1870.

	WEEK.	SEASON.
North	42,105 11	162,731 16
South	3 446 01	8,736 16
Total	45,551 12	171.468 12
Corresponding time in 1869.		
North	43,656 03	147,826 17
South	1,578 16	4,196 19
Total	45,234 19	152,023 16
Decrease North	1,550 12	Increase 14,904 19
Increase South	1,867 05	Increase 4,539 17
Total Increase	316 13	Increase 19,444 16

Penn. and N. Y. Canal and Railroad Co.

REPORT of Coal Transported via the Pennsylvania and New York Canal and Railroad Company, for week ending January 29, 1870:

	WEEK.	PREVIOUSLY.	TOTAL.
Anthracite	5 6:0 00	26,460 65	32 2.1 65
Bituminous	2.625 00	25 681 00	28 306 0?
Total, Ant. and Bit.	8,485 09	52,041 16	60,527 65

Prices of Coal by the Cargo,

[CORRECTED WEEKLY.]

	AT NEW YORK, Feb. 4.		AT PHILADELPHIA, Feb. 3.	
SCHUYLKILL.	R. A.	W. A.	R. A.	W. A.
Lump	$— —	$5 00	— —	5 00
Steamer	— —	5 0.	— —	5 00
Broken	— —	5 50	— —	— —
Egg	5 75 to — —	5 50	— —	5 00
Stove	6 00 to — —	5 75	— —	5 25
Chestnut	4 6)to — —	5 00	— —	4 25
Pea	— —	— —	— —	— —
LEHIGH.				
Lump	5 75	— —	— —	— —
Broken	5 50	— —	— —	— —
Egg	5 50	— —	— —	— —
Stove	5 75	— —	— —	— —
Chestnut	5 00	— —	— —	— —
Pea	— —	— —	— —	— —
SPECIAL COALS.*				
Diamond Vein	R. A.	6 50	— —	— —
New England	"	— —	— —	— —
Locust Dale	W. A.	6 00	— —	— —
Honey Brook, Leh'h	W. A.	4 50 to 5 25	— —	— —
Spring Mount	" "	4 50 to 5 25	— —	— —
Sugar Creek	" "	4 50 to 5 25	— —	— —
Sugar Loaf	" "	4 50 to 5 25	— —	— —
Fulton	" "	4 50 to 5 25	— —	— —
Stout	" "	4 50 to 5 25	— —	— —
Old Comp'y's	" "	4 50 to 5 25	— —	— —
Cross Creek	" "	4 50 to 5 25	— —	— —
Enterprise	" "	— —	— —	— —
Girardville	" "	— —	— —	— —
McMichael	" "	— —	— —	— —
Shamokin	" "	5 50	5 50	— —
Lykens Valley	" "	— —	— —	— —
Broad Top	" "	— —	4 75	— —
Hill & Harris	" "	— —	5 50	— —
Henry Clay	" "	— —	5 50	— —
Powelton	" "	— —	5 25	— —

Prices for Coal at Mauch Chunk.

	F.L.	Bro.	Gra.	Eg.	Sto.	Cat.
Lehigh	$3 00	$3 25	$3 25	$3 25	$3 75	$3 00
Wilkesbarre	3 00	3 25	3 25	3 25	3 75	3 00

For freight to Elizabethport and to New York see "Freights."

BITUMINOUS COALS.

Kittaning Coal Co.'s Phœnix Vein..f.o.b. at Phila	$5 25
" Lemon " "	5 00
Cumberland C. & I. Co.'s on board	N. Y. 7 5?
Central C. & M. Co.'s "	7 50
Consolidated Coal Co.'s "	7 50

[*Dealers in these coals may be found in our advertising columns.]

Company Coals.

	L.	Str.	Gra.	Eg.	Sto.	Ches.
Scranton at E. Port	— —	— —	— —	— —	— —	— —
Pittston at N. Y	— —	— —	— —	— —	— —	— —
Lackawana at Weh'kn.	4 85	4 70	4 30	5 00	5 40	4 60
Wilk'b're at Hoboken.	4 75	4 75	4 75	4 75	5 25	4 50
Old Co. Lehigh at Pt. Johnston	5 50	5 00	5 00	5 00	5 25	4 50
Lehigh at E. Port	5 25	5 00	5 00	5 00	5 25	4 50

For freights to different points, see "Freights."

Prices of Foreign Coals.

February, 1870.
Duty $1 25 per ton.
Corrected weekly by PARMELE BROS., No 32 Pine street, New York.

Liverpool Gas Caking	$ 9 50@— —
" Cannel	13 00@14 00
" House "	14 50@17 50
" Orrel	14 00@16 00

Per ton 2,240 lbs., ex-ship.
PRICES FROM YARD.

Liverpool House Orrel, screened	$16 00@18 00
" Cannel, "	19 00@22 00

Per ton 2,000 lbs., delivered

Prices of Gas Coals.

February, 1870.
PROVINCIAL.
Corrected weekly by Louis J. Beiloni, Jr., 43 Pine st., N. Y.

Duty, $1 25.	Coarse. Gold.	Slack. Gold.
Block House	$1 75	@- 75
Gowrie	1 75	@- 75
Lingan	1 75	@- 75
Sydney	2 13½	@- 71½
Picton	2 13½	@1 18¾
Little Glace Bay	1 50	@1 00
Caledonia	1 50	@- 75

AMERICAN.

	Coarse. Currency.	Slack. Currency.
Westmoreland Co	— —	@- —
Despard Coal Co	$8 50	@8 00
Penn	— —	@- —
Newburg Orrel Gas	8 50	@8 00
West Fairmount Gas Coal	— —	@8 00

AT PHILADELPHIA.

Powelton	$7 80

Prices at Georget'n, D.C., & Alexandria, Va.

February, 1870.
George's Creek and Cumberland f. o. b. for shipping..$4 75

Prices at Havre de Grace, Md.

Wilkesbarre and other White Ash for cargoes	$- —@- —
Lykens Valley	— —@- —
Shamokin Red or White Ash	— —@- —
Trevorton and Zebra Valley	— —@- —

Rates of Transportation to Tide Water.

BY RAILROAD.

TO PORT RICHMOND, PHILADELPHIA.

Philadelphia and Reading Railroad, from Schuylkill Haven	$2 00

From Port Carbon, 8 cents per ton more.

MAUCH CHUNK TO ELIZABETHPORT.

L. V. Railroad from Mauch Chunk to Easton	$ 81
C. R. R., N. J., Easton to Elizabethport	1 19
Shipping expenses at Elizabethport	25
Warfage	10
Total	$2 35

MAUCH CHUNK TO PORT JOHNSON.

L. V. R. R., or L. & S. R. R from M. C. to Easton	$ 81
C. R. R., of N. J., Easton to Pt. Johnson	1 19
Shipping expenses	25
Warfage	10
Total	$2 35

TO HOBOKEN.

L. V. R. R., Mauch Chunk to Easton	$ 81
Morris & Essex R. R. Easton to Hoboken	1 19
Shipping expenses	25
Warfage	10
Total	$2 35

TO SOUTH AMBOY.

L. V. R. R.	81
R. & D. R. R.	1 23
Cam. & Am. R. R.	
Shipping Expenses	25
Total	$2 34

PENN HAVEN TO ELIZABETHPORT.

L. V. RR. Penn Haven to Easton	95
C. RR. of N. J. Easton to Elizabethport	1 19
Shipping expenses	25
Wharfage	10
Total	$2 49

Freights.—FEBRUARY, 1870.

TO EASTERN PORTS.	From Philadelphia.	From Port Richmond.	From Elizabethport.	From New York.
Stamford	$2 00	$1 10	$	$
Norwalk	2 25	1 60		
Bridgeport	2 00	1 00		
New Haven	2 25	1 00		
Hartford	2 75	1 50		
New London	2 00	1 25		
Norwich and Sou	2 00	1 40		
Mystic	2 00	1 40		
Stonington	2 00	1 40		
Sag Harbor	2 00	1 40		
Bristol	2 50	1 50		
Newport	2 50	1 43		
Fall River	2 50	1 40		
Providence	2 50	1 40		
Dighton	— —	— —		
Warren	— —	— —		
Pawtucket	2 25	— —		
New Bedford	2 25	1 40		
East Cambridge	3 00	2 00		
Salem	3 00	2 00		
Newburyport	3 10	2 00		
Portsmouth, N. H	3 35	2 15		
Rockport	— —	— —		
Saco	3 00	2 25		
Portland	3 00	2 00		
Bangor	3 00	— —		
Bath	3 00	2 00		
Middletown	— —	1 40		
Amesbury	3 25	— —		
Boston	3 15	2 00		
Cambridgeport	3 00	2 00		
Taunton	3 10	2 00		
Derby	2 00	— —		
New York	1 75	50		
Hackensack	1 95	— —		
Jersey City	1 75	50		
TO RIVER PORTS.				
Troy	— —	— —		
Albany	— —	— —		
Coeyman's	— —	— —		
Stuyvesant	— —	— —		
Cocksackie	— —	— —		
Hudson	— —	— —		
Catskill	— —	— —		
Poughkeepsie	— —	— —		
Fishkill	— —	— —		
Cold Spring	— —	— —		
Haverstraw	— —	50		
Nyack	1 60	50		
Sing Sing	1 60	— —		
Yonkers	— —	40		
New York	— —	— —		
Sangerties	— —	— —		
Rhinebeck	— —	— —		
Rondout	— —	— —		
Tarrytown	1 60	80		
West Point	— —	— —		

Foreign and Provincial Freights.

February, 1870.

Foreign.	
Newcastle and Ports on Tyne	£15@£17 keel
Liverpool	15s. —. do
TO NEW YORK.	
Provincial	
Sidney	$3 25
Lingan	3 25
Cow Bay	3 25
Port Caledonia	3 25
Little Glace Bay	3 25
TO BOSTON.	
Sydney	$2 75
Lingan	3 75
Cow Bay	3 25
Port Caledonia	3 00
Little Glace Bay	2 25

Iron and Steel Manufactures.

THE American Iron and Steel Association, having its office in this city, an organization formed for the purpose of collecting annually the statistics of the iron and steel manufactures, will hold their annual meeting in a short time. We give below a few of the facts collected by the Association during the past year, showing that the iron industry of the country has been prosperous and generally satisfactory. The Association estimate the number of hands employed in the primary production of iron at 140,000, as follows: At blast furnaces, 12,500; in preparing ore and fuel for same, 42,000; at forges and bloomeries, 2,500; in rolling mills, 58,000; and in preparing fuel for the latter, 25.000. In the progress of iron to its finished condition, it is estimated that 800,000 in addition to the above are employed—making a total of 940,000 persons altogether.

The value of pig iron made in the country during the year 1869 will approximate $75,000,000, and if the value given to the product by the rolling mills, forges, &c., be added, the total value will be about $138,000,000. If to this be added the value of articles comprised under the head of manufactures of iron, the grand total is estimated at $900,000,000, which is three times the product of any other interest excepting agriculture.

During the past year it is estimated that the total quantity of all kinds of pig iron made in the United States, in tons of 2,000 pounds, was 1,950,000 tons. During the years 1867-8, and until near the close of 1869, the furnaces of the country were fully and profitably employed. During the past few months, however, home competition, brought about by the erection during the past year of sixty-five new furnaces, has reduced the price. During the past two years fifteen or twenty new anthracite blast furnaces of large capacity, and with every new appliance calculated to increase the quantity and improve the quality of pig iron, have been erected in the immediate vicinity of Philadelphia. In the Mahoning Valley, Pennsylvania, thirteen new furnaces have been erected during the past five years, upon which $823,050 have been expended, increasing the production to the extent of 91,000 tons in that locality alone.

The Western States have not been idle. Three years ago there was not a single furnace in the State of Illinois or Indiana; now there are over a dozen in full blast, with a capacity of about 75,000 tons per annum. The production of pig iron in Missouri has been increased over two hundred per cent. within the past year, by the erection of new furnaces and improvement of old ones. Ohio, Michigan, and Wisconsin each show a heavy increase.

In the production of railroad iron, the capacity of our mills has grown with the requirements of the country. The following statement shows the progress of this branch of the iron manufacture for a series of years, the product being given in tons of 2,000 lbs:

	Tons.		Tons.
1853	87,000	1862	213,000
1854	103,000	1863	276,000
1855	138,000	1864	335,000
1856	120,000	1865	356,000
1857	171,000	1866	430,000
1858	163,000	1867	462,000
1859	195,000	1868	506,000
1860	205,000	1869 (estimated)	550,000
1861	189,000		

The following statement shows the quantities of the various kinds of wrought iron, other than railroad iron, made in each State in the year 1868, in tons of 2,000 lbs.

States.	Merchant bar & rod.	Sheet.	Plate.	Hoop.	Nails & Spikes.	Axle & other.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons	Tons.	Tons.
Maine	4,600	.....	.....	.....	425	.....	5,025
N. H	1,250	.....	.....	.....	.....	.....	1,250
Vermont	250	.....	.....	.....	2,820	900	3,970
Mass.	16,700	.....	10,000	900	22,700	7,250	57,550
R. I.	6,6?0	1,900	.....	.....	4,300	.....	12,880
Conn	7,200	.....	.....	.....	1,700	8,900	
N. Y.	47,800	750	25	420	7,000	14,2.0	70,4?0
N. J.	12,000	.....	6,000	427	25, 0	6,200	49,725
Penn.	124,000	23,000	38,000	12,?00	47,000	0,000	254,200
Del.	2,?00	290	1,100	.....	.....	.....	4,080
Mary'd.	5,?00	3,500	11,000	.....	15,000	2,800	24,200
W. Va.	2,100	3?0	.....	.....	22,000	.....	24,440
Ohio	42,800	4,000	4,500	3,200	16,500	7,000	78,?00
Oth. Sts.	10,?00	2,20	5,670	.....	.....	.....	17,870
Totals	283,68	3?,770	76,620	17,145	19,345	50,?50	612,610

Add to the total amount above given the 506,000 tons of rails manufactured in 1868, and we have a total product for the rolling mills of 1,418.610 tons. Many millions of dollars have been invested in the manufacture of steel rails, which are, to some extent, supplanting iron rails upon our principal roads. It is estimated that 50,000 tons of these rails were laid during the year just closed, of which about 35,000 tons were foreign and 15,000 tons of American manufacture.—*Philadelphia Ledger.*

Notes on Alturas County, Idaho.

BY P. S. BUCKMINSTER, ESQ.

THE following notes refer to a visit to Alturas county, Idaho, in June, 1869, for the purpose of personal observation of mines and mining interests. In the districts visited, so little active mining was at that time going on, that a general description will cover most of the ground. Speaking of "districts," it should be mentioned, that the Territorial Legislature has prescribed laws governing the location and possessory title of quartz lodes in the Territory, excepting rules and regulations for four northern counties, which the miners are allowed to provide for themselves. One provision of the Territorial law is, that the mining records shall be kept at the county seats, by the county recorders. Each county is, therefore, in fact, a single mining district; but, for convenience, the miners adopt local distinctive names for different discoveries or camps within the counties.

Rocky Bar District is ninety miles northeast from Boise City, upon a tributary of the South Boise River. A town in the heart of the district, bearing the name of Rocky Bar, is the county seat of Alturas county. Mines were first discovered there in 1863. The lodes are auriferous quartz, generally carrying considerable iron sulphurets and encased in granite. A considerable number have been discovered and located. They are generally small, ranging in width from a few inches to three feet. Some of the smaller ones are quite rich, paying well when a few men are employed to extract the ore and work it by arastra; but efforts to work upon a more extended scale have not proved continuously successful. A few arastras were running in June. There are three stamp mills in the district, belonging to the Idaho Confederate Star and Pittsburgh companies. They were all standing idle. The Idaho lode, which has been the leading one of the district, was worked some three years, and a large amount of ore extracted and milled, part of the time with profit. It was afterwards sold to an eastern company, who are not now working it. There have been placers in this district of considerable productive value. The best of them have been exhausted; but others are still worked to a limited extent.

Red Warrior District is some two miles west of Rocky Bar, and likewise possssses a considerable number of locations, upon most of which there has not been sufficient work done to determine their true character and value. There is one active mining company, the Wide West, which has a lode of quartz bearing free gold, together with a considerable amount of pyrites, the gold and iron appearing, however, to be quite independent of each other. The strike of the lode is a few degrees east of north, and the dip 85° west. This vein is from two to five feet wide, well defined, and encased in granite. The ore gives a milling return of forty dollars per ton. The mine is worked through a tunnel, having backs sufficient to keep the mill running three or four months. A second tunnel, one hundred feet lower, had nearly reached the lode at the time of my visit, and is reported by the superintendent to have since cut it, developing the good ore. Connected with the mine is a ten-stamp mill, run by steam-power. This mine is owned in New York, and superintended here by Mr. JOHN MCNALLY. It is particularly noticeable for the intelligent and energetic manner in which it is opened and worked. The same good management extends to the mill, with the necessary arrangements for saving gold. The example thereby presented, of a profitable mine, justifies the opinion that in the same district and neighborhood, under equally judicious control, other similar enterprises might achieve a like success. There are two other mills in Red Warrior—the Victor, with twelve stamps, three MOORE'S grinders and steam-power, and the Farnham, with ten stamps and steam-power. Through the failure of the first proprietors, both of them, together with their mining locations, have passed into second ownership, and are now idle. There are a few placers still being worked, but most have been exhausted.

Yuba District was discovered soon after Rocky Bar, and is situated some sixteen miles north of east of that place, upon Middle Boise and Yuba rivers. The only active company in the district is the Monarch, an organization of Northern Indiana, having a claim of fourteen hundred feet upon the Atlanta lode. This lode is quartz, encased in granite, with a strike of north 79° east, and dip of 80° to 85° north, where I could observe it. A ravine crosses the Monarch mine, some three hundred feet from its west end. The eastern portion rises some two hundred feet in vertical height, above the bed of the ravine. The first development was made from near the centre of the location, by driving east upon the outcrop, into the face of the hill, where a small seam of good ore was found. This was extracted, from the drift up, by overhand stoping, and that part of the mine was then allowed to cave.

The developments at the time of my visit were a drift, commencing some seventy-five feet east of the ravine, and running east upon the lode some one hundred and twenty-five feet. At this point the drift forks, one branch bearing a little to the right, the other to the left, and both extending some seventy-five feet further. Neither drift has developed any selvage or country rock: and as there are fifteen or twenty feet of quartz between them at their ends, the lode is shown to be quite wide at this point. The right-hand drift shows in face and along its top for some distance a very rich seam of ore, from one to four inches wide, composed of native silver, silver glance or sulphuret, and antimonial silver (apparently pyrargyrite), comparatively little quartz being intermixed. On each side of this seam is a low grade of ore, containing the same minerals, accompanied with considerable iron, mostly in the form of sulphurets. The full width of the pay-vein will average nearly two feet. The left-hand drift has developed a seam and vein similar to the right, but wider: the rich seam is from one to six inches, and the whole pay-vein nearly or quite three feet in width. A very small amount of gold is shown by assays to accompany the silver. These developments are some one hundred feet lower (vertically) than the old workings first mentioned, to which, doubtless, one of the ore veins extends. Four miners were employed in the mine at the time of my visit. The company has a mill with one French burr, one cast iron grinder, two Varney pans, and one settler, all run by water power. Connected with the mill is a roasting furnace. Two men were employed at the mill.

There are two other mills in this district, the Greenback, (water power), owned in Northern Indiana, having ten stamps, four pans, and two settlers, and, connected with the mill, a sort of Dutch oven for burning ore, for what particular purpose did not appear; and the Maine Company's mill. (steam power) with ten stamps. Both were standing idle. In addition to these, there were three arastras running upon small developments, not sufficiently important to justify a description.

There are many mining locations in the district. Most of those of esteemed value are embraced in a tract of country about three miles square, known as Atlanta Hill. There has been considerable work done in prospecting these locations; but generally in such a scattering and superficial manner, that one has far less facilities for judging them than the labor expended should afford. In several I noticed free gold; in a few fair showing of silver, and in others traces of silver. Rocky Bar, Red Warrior and Yuba districts are abundantly supplied with timber and water, generally distributed, and conveniently accessible.

Atlanta district is a mining field of greater promise than the developments of five years seem to have fulfilled. Through unfortunate selection of machinery and arrangement of mills, the first tests of ores were far too expensive, and generally unsatisfactory in result; whereas, I think, many of them should have been remunerative. Another feature seriously affecting the energetic development of mines here, and equally throughout the Territory, is unjust and narrow legislation. One provision of the law is, that no non-resident shall make locations. The effect of this absurd regulation, intended to force all outsiders to buy locations of the citizens of Idaho, has been, of course, to keep out prospectors and capital from other States and Territories. The home supply of capital following this channel of industry is naturally very limited. Considering that the mines belong to the United States, and not to Idaho, this legislation was as arrogant and illegal as it was palpably selfish and silly. As might be expected, its authors, at the same time, provided so inefficiently in other particulars as to enable men without capital or any intention of prospecting claims, further than to enable them to hold for speculative purposes, to make a large number of locations, and, without even doing the prescribed assessment work, to carry them year after year, thereby obstructing legitimate mining.

Nowhere more clearly than in Idaho is shown the desirableness of a uniform national law, simple in its provisions, and applying to all our mineral territory, which shall extend to prospectors all reasonable guard and protection, and at the same time protect the mines from being locked up for speculative purposes, without consideration to the public or the Government. The law should prescribe a definite amount of work to be expended upon claims immediately following their location, and some reasonable amount every year thereafter. This would either demonstrate their value or throw them open to other prospectors, if the first discoverers and owners did not choose to develop them.

The Magnetic Iron Sands of Canada.

LETTER FROM DR. T. STERRY HUNT.

TO THE EDITOR—Sir: So many inquiries have come to me of late about the magnetic iron sands of Canada, their extent, composition, and mode of working, that I am induced, in advance of a Report about to be published by the Geological Survey, to send you a few notes, hoping that you will give them publicity through your valuable journal.

The sands from the mines of the crystalline rocks in Canada, as in most other regions, hold considerable quantities of iron ore, which along the shores of lakes and of the sea is seen partially separated by a natural process of concentration through the action of the water. The ancient marine sands which are found in the lower St. Lawrence, from the present sea-level to altitudes of several hundred feet, are often bounded and barred with layers discolored by black iron sand grains, and in some places beds of several inches in thickness are almost free from the admixture of sand. More generally, however, to obtain it of such a degree of purity requires a process of artificial concentration by washing or otherwise. The black sand thus obtained is not homogeneous, but may be separated into a magnetic and a non-magnetic portion, the latter predominating in the washed sand. While the magnetic part is nearly pure magnetic iron ore, the other portion contains from thirty to thirty-five per cent. of titanic acid, and consists in great part of titanic iron (menaccanite) with some admixture of garnet.

Successful attempts have been made to work these iron sands at Moisic, where they are treated in bloomery fires, and are reduced without difficulty, the daily yield of iron to each furnace being as great as in the similar furnaces of Northern New York, where non-titaniferous ores are used. The bar iron thus produced is of excellent quality and retains no titanium in its composition, while the fluid and readily crystallizable slags hold a great deal of titanic acid as silico-titanate. The layers of iron sand at the Moisic are very rich, and the same is true of many other deposits in that vicinity and at Mingan, Natashquan, and elsewhere; but in many localities there are great quantities to be obtained which yield by washing from eight or ten per cent. to thirty or fifty per cent. of heavy black sand. Attempts have been recently made to purify these by means of a magnetic separator, which leaves behind both the silicious and titanic portion. For the bloomery fire such a degree of purification is not required, but for some of the newly proposed processes of direct conversion, or for the manufacture of malleable iron from pig metal by the Ellershausen process, and generally for ore intended for separation, it is deemed desirable to get as high a per-centage of iron as possible, or in other words, to obtain pure magnetic iron ore. This, in the case of these titaniferous iron sands, can only be attained by the use of magnets. Dr. LARNE, professor of chemistry at the Laval University, Quebec, has contrived for this purpose a simple and ingenious machine, which appears to be entirely novel in its arrangements, and is very efficient and rapid in its action. One of these I have seen in operation at Quebec, and of another put in operation at Clifton, New York, I have been furnished with an account by Dr. LARNE. This machine, which is fitted with batteries of permanent magnets, occupies a space about six feet by five, and is four feet high. From three tons of sand, holding one-third of magnetic ore, it will separate in an hour one ton containing over ninety-nine per cent. of magnetic iron—or twenty-four tons in twenty-four hours. The wear and tear, and the motive power required are very small, and two men can, it is said, tend ten machines.

It was estimated at Clifton that the cost of purifying such iron sand would not exceed three cents per ton. Of course, if applied to massive ores, the cost of crushing and sifting would be added. By proper adjustment, this machine may be adapted to the preparation of lean massive ores for the bloomery fire, or for other direct methods of conversion into iron or steel. Meanwhile the deposits of iron sand, which may be utilized by means of this machine, on the north shore of the St. Lawrence, from the Saguenay to Newfoundland, are practically inexhaustible. Dr. LARNE informs us that inasmuch as a rich sand may be passed through the machine as rapidly as a poor one, the yield of the machine varies directly with the proportion of magnetite present; so that a sand containing say nine per cent. would yield six tons in twenty-four hours. Even the poorer sands may thus be used with advantage.

It is not, however, to the lower St. Lawrence that these sands are confined; they are met with in considerable quantities at Batiscan, between Quebec and Montreal, and a large accumulation of black iron sand at the mouth of Lake Huron attracted attention some years since. Similar deposits have been observed on both shores of Lake Erie, and I was informed more than twenty years ago that attempts had been made to collect the iron sand along the shore, and use it, together with bog ore, in a blast furnace on the Canadian shore. The iron sands of Taranaki, in New Zealand, are well known; and similar sands, according to BRUNO KERL, are worked in open hearths near Naples.

Black magnetic iron sands are found distributed in greater or less abundance, in numerous localities along the seaboard of Connecticut and Rhode Island, and it is said upon some of the adjacent islands. The utilization of these abundant and wide-spread deposits of an ore which is free from phosphorus and sulphur, and may be obtained in a great degree of purity by the magnet, is a problem well worthy the attention of metallurgists, and is already attracting considerable attention.

T. STERRY HUNT.

Montreal, Jan. 20, 1870.

Wooden Railways.

TO THE EDITOR—Sir: In considering the relative claims of wood and metal as material for rails, the fact should be recognized that wood is exempt from the inconvenience, dangers, and expense incidental to contraction and expansion under variations of atmospheric temperature. Metal, at an extreme low point, fractures, and most lamentable casualties result; while, under the fervid heat of 90°, 150°, or 170°, the expansion of iron is so great as to displace the work on which the rails repose, and thus render the whole fabric unsteady and unsafe. In my communication on Wooden Railways, which appeared in your issue of the 18th inst., I remarked that were the margins of such roads planted with locust trees *(Robina acacia)* on appropriate soil, the plants would attain to a size ample for use in replacing, etc., and for sleepers and ties in perpetuity. This will apply with equal force to such plantations on the margins of all the roads, wooden or iron, in gigantic railway systems of the world. If the suggestion were adopted and put in practice, it would, in twenty years, be worth many millions of dollars—all the more, as timber for making and keeping up repairs of all the wooden structures on the several lines is always on the spot where it is wanted.

I claim only the merit, if merit there be, of promulgating my thoughts as to margin planting; for COBBETT is the great advocate of general and extensive plantations of locust, and other timber trees. See COBBETT'S "*Woodlands.*"

GEO. WOODWARD.

Port Chester, N. Y., Jan. 29, 1870.

New Blast Lamp.

MESSRS. BERGE AND DELHEID, of France, have introduced a blast-lamp, which is a modification of the Bunsen burners in general use, and differs from the latter in the following particulars: 1. By the mode of the admission of the air, which is made to come in below the gas, and not on the same level therewith, or above it, as in the ordinary Bunsen burners; (2) by the admission of a larger quantity of air, by making it pass through the entire area of the tube; (3) by the addition of an outer cylinder, placed to prevent the heating of the tube from which the flame issues, by making a current of air pass between the two. From the report of the makers, this lamp appears to be very useful, especially for fusions requiring high and long-continued heat.

THE ENGINEERING AND MINING JOURNAL.

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ROSSITER W. RAYMOND, Ph. D., Editor.

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A Plea for Franking.

NEWS comes from Washington that the House of Representatives, in a spasm of reform, or Buncombe, or spite, has passed a bill, unconditionally abolishing the franking privilege. It is reported that the free exchange of newspapers will also be abolished; indeed, if we are not mistaken, the same bill provides for that change.

We regard this action as mischievous and ill-considered; and we hope the Senate will not confirm it. The political press of the country is apparently afraid to speak out on the subject. The abolition of the franking privilege is popular as a war-cry; and there is even a sort of scramble among partisans, each side wishing to keep ahead of the other in urging a "reform" to which it is nobody's interest to object. When parties thus forget the true interests of the country, it is time for the non-political press to speak clearly.

The successful government of a country as large as ours is only to be carried on by free use of the great facilities of communication afforded by modern science. The representatives of the people, collected in a secluded city, can only feel the pressure of public sentiment through the press and the post-office; and the people can only find out by these means what their servants are doing. The free transmission of official documents and correspondence through the mails is highly promotive of this continual interchange; and, however it may have been abused, we cannot afford to abolish it entirely.

We are told that the English post-office earns an annual surplus, while ours has an annual deficit, and that this is caused by the enormous amount of mail-matter carried free by us. But if the franking privilege is abolished, a large portion of this matter will still go through the mails; and it will cost the government just as much as before; only the expense will be charged to the stamp-account of each department, instead of the franking account of the general post-office. The gain here is merely nominal. Another large amount of the matter now sent free, will not be sent at all. Constituents will not write so often to their representatives; representatives will not so often reply; public documents for general distribution will not be printed; and the result of all these changes will be a great national industrial and commercial loss, balanced by a small pecuniary gain. For, even then, our post-office will not pay for itself. The expense of mail-carriage in remote and sparsely settled States and Territories will continue to eat up the profits.

Now, we protest against economy in this direction. The abuses of the franking system may be reformed; but the system itself we look upon as a necessary part of successful representative government.

Not long ago, the London *Saturday Review* took occasion to compare the public documents of this country with those of England, and to praise the enterprise and wisdom of the United States in the free distribution of valuable information to its citizens. The English system of keeping public documents for sale, is an excellent one, and should be grafted upon ours; but nothing should be done to hinder that thorough dissemination of knowledge concerning our government and its acts, our country and its resources, which is our chief safeguard against evil practices.

The mixed character of our population makes this more necessary to us than to other nations. The widely circulated public documents of the United States have helped to influence a vast foreign immigration, which they must now help to educate. The information contained in official reports must not be pigeon-holed in bureaux, or left to the imperfect and often garbled versions of the partisan press.

Let the use of franks be restricted; let the character of public documents be more strictly criticised before their publication; let a dozen things be done to reduce the annual costs of printing and postage; but let nothing be done that will essentially hinder free intercourse between the nation and the government.

Destruction of Timber.

Sir: One of the worst abuses in settling the mining regions and other portions of the West, has been the wanton destruction of timber. This reckless and disastrous practice, was extensively prevalent in the heavy fir and cedar forests of Oregon and Washington, nearly twenty years ago. Timber was so abundant that to many it seemed inexhaustible, and they took especial delight in its destruction. Hundreds of square miles were burned over in a single season, and vast quantities of the finest timber in the world, easily accessible for purposes of commerce, either totally consumed or rendered utterly valueless. The same waste is yearly going on in all the Western States and Territories, and particularly in the mining regions of the Rocky Mountains. We are, perhaps, most familiar with facts and results in Colorado.

When that Territory was settled, some ten years ago, the mountain sides were found generally covered with thick forests of pine, spruce, fir, and other trees, most of them of small size and short body. A given space would not give a large quantity of lumber or wood, as compared with many timbered countries, but for that very reason it was the more valuable, and its economy of more importance, because there was no other source of supply. Generally, those forests were green and flourishing. Only at rare intervals could a track be found that had been burned over by the Indians, and the trees killed. To-day, certainly, one-third—possibly one-half—in all the settled portions of the Territory, are dead—killed by fire. And outside the settlements, in regions visited at long intervals only by prospectors, their tracks can be everywhere seen in blackened trunks and lifeless, desolate-looking hill-sides. During the dry, scorching latter summer, the eye seldom glances over the mountain landscape without seeing somewhere—often in several places—the dense column of smoke that indicates a burning forest. Some of this destruction is fairly attributable to accident, more of it to culpable carelessness, and yet more to criminal design.

Another source of timber waste is in the felling of trees unnecessarily. Often a man, finding a good body of timber for lumber, will go to work and slash down hundreds or thousands of trees, thinking that some other man will come in with a saw mill and buy his logs. Sometimes the customer makes his appearance, but often he does not, until the logs are rendered nearly, or entirely, worthless by decay, and the ravages of worms. But suppose the saw mill comes, there is no effort at economy. Timber is plenty; it belongs to Uncle Sam, and "I have as good right to it as anyone else." Hence, only the best is used. The tree that would furnish three saw logs, and its top two cords of wood, if it belonged to the logger or mill-man, in this case supplies but two logs, and the remainder is left to rot, or to be devoured by the fire that is set out when the neighborhood has been skinned of its most valuable trees. The saw mill is pulled up and moved a mile, or five, or ten, to another fine grove, where the same thing is done over again, and so on.

At Central City, Colorado, the oldest and most populous gold mining center, the consumption of wood for fuel is very large. A few years ago it was purchased for two dollars per cord, but the increased distance of hauling has advanced the price about one dollar each year, until now it frequently costs ten. Lumber has to be brought from twenty to forty miles, and heavy mill-timbers often much further. And to obtain these articles they are robbing and skinning districts that may at any day require their own timber just as much as Central City ever did. Denver, which formerly obtained her supply of lumber within twenty or thirty miles, now has to haul much of it sixty. Other examples might be cited, but it would only be an accumulation of evidence. The question arises: "Where is all this to end?" And the answer of the denuded hill sides, of the dismal wastes upon the mountain slopes, with their millions of charred trunks and ghostly whitened branches, is terribly suggestive.

What shall be the remedy? Government officers have tried to check the waste of log-wood, by the collection of a stumpage tax, and sometimes by stopping such operations altogether; but the reform is not perceptible, and the deputy marshals soon tire of the task. In fact they are powerless. The entire standing army of the United States could not enforce regulations against cutting timber upon government lands. The territorial legislature, years ago, enacted a stringent law for the punishment of those who fire prairies or woods; but the records show no example of its enforcement. Last summer, in a new mining district that was formed, the miners, among other by-laws, adopted one, that any person firing the woods should be hung. They then nailed upon trees at the borders of the district, upon all the trails leading thither, boards, upon which were painted: "Put out your fires! Any person firing the timber will be hung." No damage was done by fire in that district last year, but some day a reckless dare-devil will probably fire the woods, just to see whether or not he will be hung for it. The general government has failed, the territorial government has failed, and Judge Lynch *will* fail, to protect the timber. What then? We incline to think the only course is, for the government to put the lands in market, and sell them to settlers under rules now applicable to the location and perfection of homestead and pre-emption claims upon agricultural lands, with this change: Where such locations are made upon mineral lands—so returned by deputy surveyors and the surveyor general of the district—the title conveyed shall be a surface right only, which shall be absolute ownership, except in relation to minerals. The ground shall be free to all prospectors who desire to search for minerals, and when such shall have been found, upon application to the owner of the land, the latter shall be compelled to convey to the miner such mine and room for working the same—similar in provision to the present law for the perfection of titles to mines—upon the miner paying therefor a just and equitable price for the land, without reference to the mine itself. The value of such land may be determined by appraisement by disinterested parties. Such a plan will soon put a stop to the waste of timber; settlements will keep pace with mining developments in the mountains. The timber once in the hands of private parties, precautions will be taken to guard it against destruction by fire; none will be cut down that is not needed, and once down, it will all be used up. At the same time, it will be in so many hands that prices will be kept down; wood will probably cost less than it does now. A great deal of ground upon such locations will also be brought under cultivation. There are very few quarter sections, even in the mountains, upon which there is not room for a wheat-field, or, at least, a garden patch.

The Right Man.

THE President has nominated as Commissioner of the Census of 1870 General FRANCIS A. WALKER, now the assistant of Mr. WELLS, and in charge of the Bureau of Statistics of the Treasury Department. General WALKER will doubtless be confirmed by the Senate, and his appointment will go far to redeem the mistake of Congress in rejecting the bill for taking the census so carefully prepared by Mr. GARFIELD'S committee. We regret extremely that political reasons should influence senators to insist upon the old system, with its incompetent marshals and deputies; but after all, it is better to have a good man administering an imperfect organization, than complete and perfect machinery, with an incompetent director. General WALKER, under a new law, was perhaps too much of a blessing to ask for all at once. General WALKER, under the old law, is better than the recent course of senators led us to expect; and we are thankful.

We believe that, in point of fact, the Senate has not yet taken any irrevocable action on the Census bill. It seems to be acknowledged, however, that the House bill will be rejected, and the old plan retained. If it is not too late, we would beseech the Senate to look at this great work in a higher light than as a means of securing so many jobs for political dependents. Why should not the new Commissioner, who is universally recognized as a master in this department, be allowed some discretion as to the methods and instruments to be employed? Is the object of the Census a thorough and trustworthy exhibit of the population, resources, industries, and social conditions of the country, or is it political patronage?

Origin of the Opal.

A LADY correspondent sends us the following gem, claiming that as we publish now and then verses in which minerals are made subjects of mirth, we cannot object to a production, in which poetry casts her tinge of beauty on mineralogy.

A dewdrop came, with a spark of flame
He had caught from the sun's last ray,
To a violet's breast, where he lay at rest
Till the hours brought back the day.

The rose looked down, with a blush and frown;
But she smiled all at once, to view
Her own bright form, with its coloring warm,
Reflected back by the dew.

Then the stranger took a stolen look
At the sky, so soft and blue;
And a leaflet green, with its silver sheen,
Was seen by the idler too.

A cold north wind, as he thus reclined,
Of a sudden raged around;
And a maiden fair, who was walking there,
Next morning, an *opal* found.

The Power of a Horse.

A CONTEMPORARY replies to a correspondent that it is estimated that the greatest amount an average horse can pull in a horizontal line will raise a weight of nine hundred pounds. This is a vague statement, but certainly one far from correct. The speed at which a horse would pull to the best advantage is about four miles per hour—or, say three hundred and seventy feet per minute. Nine hundred pounds, lifted at this rate, give 900+370=333,000 foot-pounds per minute, which is the work of ten horses instead of one. The only sense in which the power of one horse can be said to lift nine hundred pounds, is when the velocity of the weight, by means of intermediate machinery, is made only one-tenth of the speed of the horse. This is the reason why whims are employed. But in stating the subject generally, nine hundred pounds is no more appropriate than five hundred or six hundred. The power of a horse when he pulls over a fixed pulley, and thus lifts a weight vertically, at the rate of a steady walk, is equivalent to ninety pounds so lifted—and no more.

SOME of the photograph galleries in San Francisco employ quite a number of Chinamen, who do all the mechanical work, such as cleansing the plates upon which the negatives are taken, printing the photographs from the negatives, pasting them upon the cards, and enamelling them. By this means they are enabled to furnish pictures at a remarkably low figure.

MINING COMPANIES AND STOCK QUOTATIONS.

GOLD AND SILVER COMPANIES.	SITUATION OF MINE.	SECRETARY AND PLACE OF BUSINESS.	CAPITAL.	PAR VALUE.	OFF'R'D.	ASKED.
Alameda Silver		A. Queran, 108 Wall st	$2,000,000	$10 00		
Ada Elmore	South Boise, Idaho					
American Flag	Nevada District, Col	P. P. Fullerton, 71 B'way	600 000	10 00		
Atlantic and Pacific	Humboldt Co., Nevada					
Bates and Baxter	Colorado			50 00		
Benton	Colorado	W. F. Drake, 15 Broad	500 000	5 00	10	12
Briggs	Colorado	J. P. Davies, 19 Cliff	1 000,000	100 00		
Black Hawk	Colorado	C.T.Whittington, 48 Broad	2 500 000	100 00		
Bobtail	Colorado	J. Stanton, Jr., 25 Nassau	1,000,000			
Bullion Consolid'ed Gold	Colorado					
Burroughs Gold	Colorado					
Central Union Gold					15	25
Consolidated Gregory	Colorado				1 90	1 95
Combination Silver	Nevada			100 00	1 50	
Columbia Silver	Austin, Nevada	J. M. Brown, 155 B'way	5 000,000			
Commercial Silver		J. E. Smith, 26 Pine	3,000,00			
Corydon	Gilpin Co., Colorado	J. Samuels, 40 B'way	500 000			
Downieville	Colorado		2 500,000	25 00		
Eagle Gold	Gold Dirt Dist., Col	J. P. Davies, 19 Cliff	500,000	1 00		
Empire Gold and Silver	BodieBluff,MonoCo.Cal	H. K. Gates, 70 B'way	1 000,000			
Edgehill		A. Fullerton, 71 B'way	10,000,000			
Esperanza Silver		Ezra Clark, Jr., 93 William	400,00			
Fisk Gold		H. Johnson, 195 Fulton	500 000			
Forest Queen		E. B. Beet, 62 B'way	1,000 000			
Golconda Gold	Sherbrooke, C. E	H. Adams, 71 Broadway	2,000,000			
Gregory	Colorado		1 250,000			
Gunnell Gold	Colorado	J. H. Rolston, 80 B'way	1 000,000	50 00		
Gunnell Central	Colorado	C. B. Bostwick, 16 B'way	3 000 000	10 00		
Gold Rock		R. M. Lockwood, 93 Wall	400,000			
Grass Valley					17	21
International Silver		J. W. Brazier, 26 Pine	600 000			
Hope Gold	Colorado		5 000,000			
Holman			2 000 000	25 00		
Kipp & Buell	Colorado		300 000			
Knickerbocker Gold		J. H. Rolston, 80 B'way	200 000	100 00		
La Crosse Gold	Nevada Dist., Col	P. P. Fullerton, 71 B'way	1 000 000			
Lander Hill T. & S	Nevada	M.L.Catherwood,74 B'way	1 000,000			
Lewis Gold	Georgia		1 000 000			
Liberty Gold					2	3
Manhattan Silver	Nevada	M. L. Ogden	400 000			
Maraposa common	California	Jas. H. Fordon, 31 Wall	12 000 000		8½	8¾
Mariposa preferred	California	do. do.			16⅞	17½
Montana Gold		G. De Cordova	400,000			
Montana M. L. & M. Co	Montana	A. M. Hoyt, 22 William	280 000			
Montrose	Clear Creek Co., Cal	W. W. Perkins, 71 B'way	1 000 000			
New York Silver	Nevada	Thos. Sproull, 78 B'way	1 500 000			
New York and Austin	Nevada	E. R. Siccomb, 70 Wall	500 000			
New York and Owyhee	Owyhee Co., Idaho		1 000 000			
New York and Eldorado		G. H. Munroe, 10 Wall	2 000 000		5	
N. Y. & Montana M. & D	Montana	F. A. Chapman, 20 Nassau	1 250 000			
N. Y. & Silver Peach	Nevada	R. C. Root, 74 B'way	2 000 000			
N. Y. & Utah P. & M		W. H. Mailler, 108 Wall				
Ophir Gold	Comstock Lode, Nev	L. C. Warner, 70 B'way	625 000			
Owyhee Gold		W. H. Smith, 43 Ex. Place	1 700,000			
Pahranagat Central	Nevada	J. E. Smith, 25 Pine	6 000,000			
Quartz Hill Gold		F. Bernard	2 500,000		72	74
Reese River Consol'd	Nevada	W. B. Ogden	6,000 000		67	68
Rocky Mountain	Colorado	S. M. Pond, 70 B'way	500 000	10 00	5	6
Rollins Gold		Thos. Bond, 132 B'way	600 000			
Sensenderfer	Colorado	H. A. Shewid, 19 Broad	1 000,000		1 00	
Silver Bend		F. W. Macy, 20 Nassau	1 500 000			
Silver Mt. Silver		H. A. Moen, 71 B'way	1 000 000			
Silver Peak & R. M	Nevada	W. B. Ogden, 52 Wall	5 000 000			
Smith & Parmelee	Colorado	W. H. Hollister, 6 Broad	2 500,000	20 00	1 90	2 00
Social & Steptoe Con		T. H. O'Connor, 24 Nassau	450 000			
Standard Gold		C. B. Bostwick, 169 B'way	500,000			
Symonds Forks					45	75
Twin River Silver	Nevada	J. F. R. Hadden, 29 Nassau	800,000	100 00		
Texas Gold	Colorado		500,000	10 00		
Union Gold	Colorado	F. A. Potts, 110 B'way	1 200 000			
Wash. Mill & Silver	Nevada	W. W. Perkins, 71 B'way	300 000			
Wauba Yuma	Arizona	J. W. Silsby, 36 Pine	6 000,000			

COAL AND IRON COMPANIES.	SITUATION OF MINE.	SECRETARY AND PLACE OF BUSINESS.	CAPITAL.	PAR VALUE.	OFF'R'D.	ASKED.
American Coal Co		M. A. Myers, 119 B'way	$1,500,000	$25 00		
Ashburton Coal Co		I. T. Rollins, 41 Pine	2,500 000			
Block House Coal		D. B. Keeler, Jr., 43 Pine	1,000,000			
Brewster Iron		H. Robison, 165 B'way	150,000			
Broad Top Coal & Iron Co	Pennsylvania	B. Love	2,000,000			
Cameron Coal Co		J. A. Simpson, 40 B'way	2,500,000			
Carbon Hill Coal Co		J. Silsby, 36 Pine	1,000,000			
Central Coal		F. P. White, 111 B'way	2,000,000	100 00		
Clinton Iron Co		P. H. Riordan, 34 Pine	1,250,000			
Columbia Iron		S. D. Webb, 77 Cedar	1,000,000			
Consolidation Coal	Maryland	J. S. Mackie, 71 B'way	5,000,000			
Crawford Coal		E. Clapp, Prest. 137 B'way	1,000,000			
Cumberland C. & I. Co		E. Kissam, 90 B'way	5,000,000		31½	32
Derby Coal Co		W. S. Davison, 71 Broad				
Dover Coal and Iron Co		L. Chase, 88 Wall				
Del. & Hudson Canal Co			10,000,000	100 00		
Ebervale Coal		G.L Stout, Treas.,111 Br'y	500,0 0			
Fall River Bituminous		D. T. Blauvelt, 43 Pine	1,000,000			
Farrar Coal		C. H. Jones, 43 Pine	250,000			
Fisher Iron Co		M. Ellis, 19 William	100,0 0			
Hamp're & Balt. Coal		S. M. Pond, 70 B'way	530,000			
Iron Cliffs Co		C. J. Canda, 52 Wall	1,000,000			
Jackson Iron		G. P. Loyd, 119 B'way	300 000			
Kemble Coal & I. Co		R. A. Wight, 26 Ex. Place	300,000			
Keokuk Coal		J. F. Franklin, 112 B'way	100,000			
Lackawanna I. & C	Pennsylvania	E. C. Lyude, 52 Wall	1,200,000			
Lewis Run C. & I. Co		A. Sanborn, 80 B'way	750,000			
Lykens Val. Coal Co		F. A. Platt, 13 William	800,000			
McKean Co. Bit. Coal Co		J. H. Rolston, 80 B'way	1,500,000			
Lehigh & Susquehanna					85	1 35
Mahanoy			400,000	100 00		
McNeal C. & I. Co		C. C. Godwin, 71 B'way	500,000			
Mount Riga Iron		G. M. Newton, 42 Cedar	300,000			
New Boston Coal		C. H. Ogden, 55 B'way	2,000,000			
N. Y. Con. C. & I. Co		A. T. Levine, 16 Wall				
N. Y. & Lehigh Coal		T. Simpson, 111 B'way	150,000			
Pacific Coal Co		G. Wrighton, 34 Wall				
Peekskill Iron Co		A. Murdock, 7 Nassau				
Pennsylvania Coal Co		E. H. Mead, 111 B'way	3,200,000	50 00		
Richmond Iron Co		J. Smith, 165 B'way	1,000,000			
Scotia Coal Co		S. Soper, 42 B'way	2,500,000			
Spring Mt. Coal		J. Runyon, 111 B'way	1,250,000			
Springfield & D'p Run C		S. D. Webb, 77 Cedar	600,000			
Stout Coal Co		J. S. Comstock, 111 B'way	500,000			
Susquehanna & Wyoming		E. Potter, 40 B'way	1,000,000			
Tannerdale Coal		C. T. Ludlaw, 71 B'way	250,000			
Wash. Mutual Coal		M. C. Baker, 117 B'way	420,000			
West Point Iron Co		R. C. Brock, 110 B'way	500,000			
Wilkesbarre C. & I. Co		W. H. Tillinghast, 80 Br'y	3,400,000			
Wyoming Val. Coal Co		E. Potter, 40 B'way	1,000,000			

COPPER AND LEAD COMPANIES.	SITUATION OF MINE.	SECRETARY AND PLACE OF BUSINESS.	CAPITAL.	PAR VALUE.	OFF'R'D.	ASKED
Anita Copper	California	J. A. Ferguson, 8 Wall				
Corinth Copper	Corinth, Vermont	S. H. Howard, 191 B'way	$500,000	25 00		
Davidson Copper					3	25
Eagle Harbor Copper	Michigan	W. H. Smith, 43 Ex. Place	500,000	25 00		
Evergreen Bluff Copper	Michigan	F. W. Caper, 44 Ex. Place	500,000	25 00		
Globe Copper		R. K. Rickard, 19 Nassau	200,000			
Grand Portage Copper Co		A. S. Kellogg, 22 Pine	500,000			
Guymard Lead		Samuel Vernor, 38 Pine				
Hilton Copper		W. H. Smith, 43 Ex. Place	500,000			7
Hope Copper		J. W. Davis, 19 Nassau	500,000			
Hudson River Copper	New York	T. Clarkson, 22 William	1,500,000			
Indiana Copper Co		J. M. Mills, 25 Nassau	500,000			
Isle Royale Copper	Michigan	F. W. Caper, 44 Ex. Place	1,000,000			
Keweenaw Copper	Michigan	F. W. Caper, 44 Ex. Place	500,000			
Lake Superi'r Silver Lead	Michigan	A. S. Kellogg, 22 Pine	1,000,000			
Omiga Copper	Michigan	S. Cooper, 7 Pine	500,000			
Ridge Copper	Michigan	J. L. Gardiner, Jr., 43 Ex P	500,000			
Rockland Copper	Michigan	A. Fullerton, 71 B'way	500,000			
St. Joseph Lead	Michigan	J. W. Jones, 6 Broad st,	1,000,000			
St. Marguret Copper		E. P. Sutton, 43 Pine	250,000			
Schoolcraft Copper		R. Walsh, 22 William	500,000			
Superior Copper	Michigan	A. Fullerton, 71 B'way	500,000			
Union Copper		A. S. Kellogg, 22 Pine	500,000			
Vermont Copper	Vermont	J. C. Ely, 191 B'way	500,000			
Wallkill Lead, asst		S. M. Pond, 70 B'way			4	5

MISCELLANEOUS.	SITUATION OF MINE.	SECRETARY AND PLACE OF BUSINESS.	CAPITAL.	PAR VALUE.	OFF'R'D.	ASKED.
American Zinc Co		W. E. Lawton, 19 Cliff	$1,000,000			
Bigelow Blue Stone Co		H. Bogardus, 14 Pine				
Quicksilver					14½	15
Covil B. L. M. & M'f. Co		C. R. Bostwick, 302 Pearl	250,000			
Manhattan Marble		H. K. Gates, 70 B'way	300,000			
N. Jersey Zinc Co	New Jersey	A. H. Farlin, 61 Maiden L'e	1,500,000			

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Chapter I.—The new Almaden mines.
II.—The Mother Lode of California.
III.—The quartz and placer mines of Nevada County.
IV.—Giant powder and common powder.

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Chapter V.—Present condition and prospects of the Comstock mines.
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XIV.—Placer mines.
XV.—Quartz mines.
XVI.—Operations of the United States law.

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" Splitting of (plans)
" One current of (plans)
" One current of, and how to adopt separate currents (plan)
" Dividing of, but not into "separate and and distinct" current (plans)
" Crossings (see H on plans)
" Weight of in shafts
" How to find the weight of
" Table of pressure in shafts
" Expansion of
" Its velocity and force
" Rush of, into each division
" Quantity produced by natural ventilation
" Splitting, why it should be adopted
" Splitting, why the workmen object to Mr. Hopton adopting the mode
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Barometers, Showing the time of an outlet of gas in mines (engraving)
Bricks, how to find the number in the walling of a shaft.
Buddle's plan
Circumference of a pit, how to find
Coal, several ways of working it out, and why man methods of working it out are adopted
" Working out in banks (plans)
" Working it out in following up banks (plan)
" Working out in pillars (plans)
" Working out in long wall (plans)
" Working out in drifts (plans)
" Working out with no regularity (plan)
" Working out by the "end way" or in endings (plan)
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" How fixed in mine surveying
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" At Lund-hill, in what part of the mine it was supposed to take place (plan)
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" The place of fixing, to produce the largest ventilating current
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" (Carburetted hydrogen) do.
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" The quantity required for an explosive mixture
" The elasticity of
" The weight of
" The nature and quality of
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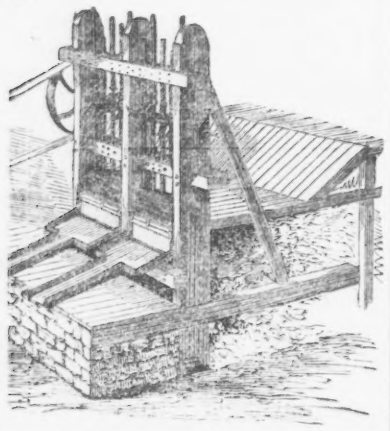

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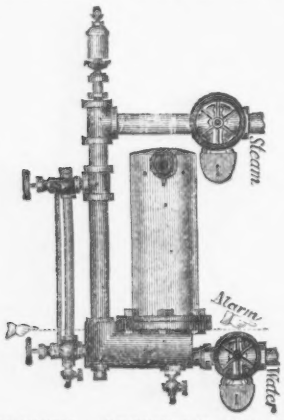

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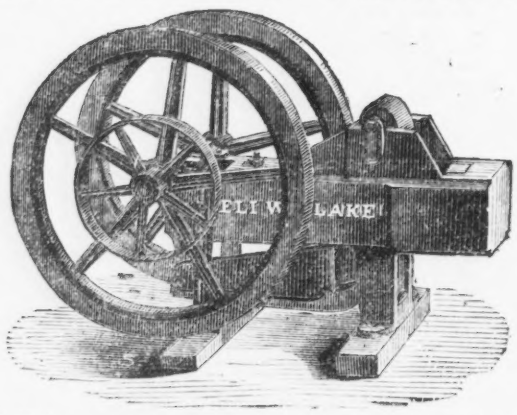

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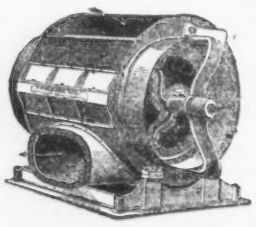

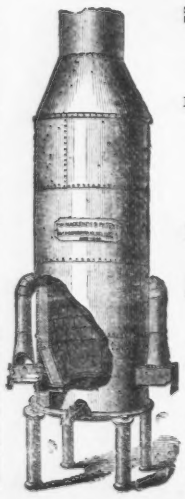

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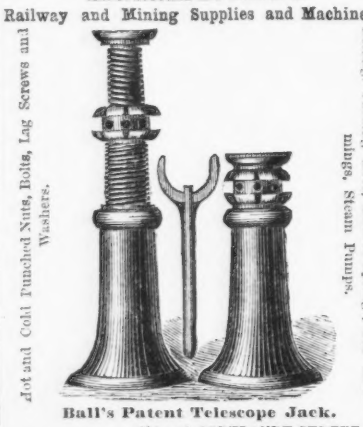
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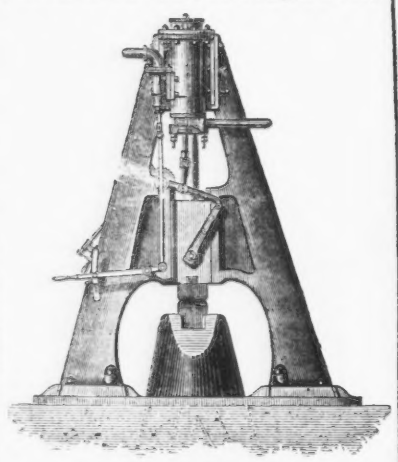

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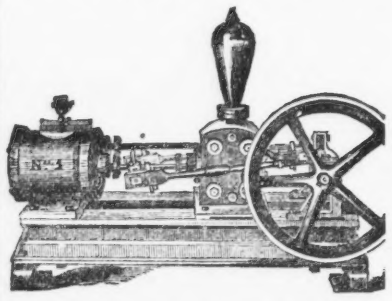

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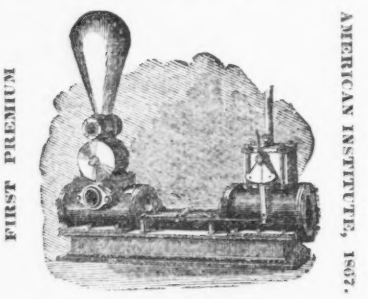

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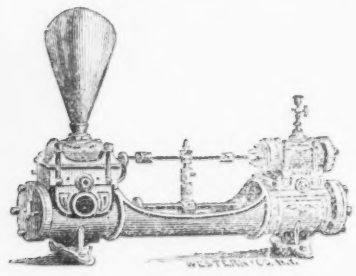

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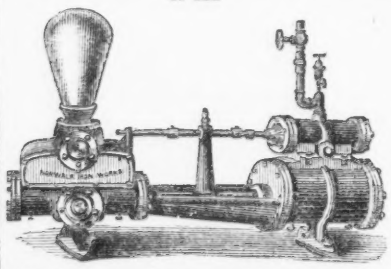

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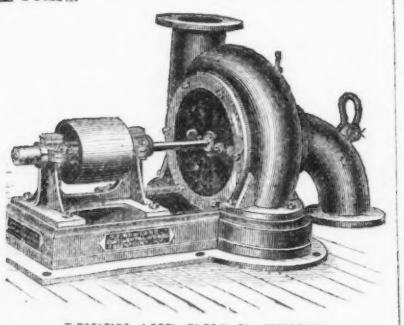

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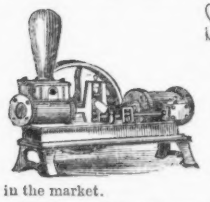

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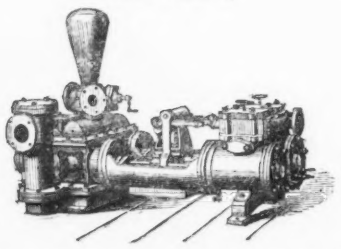

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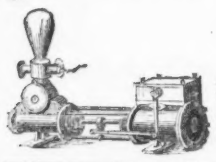

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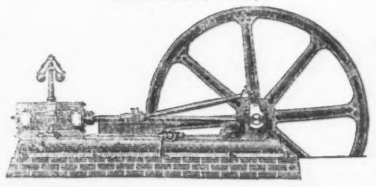

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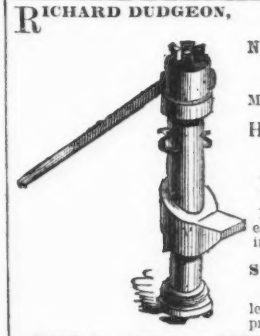

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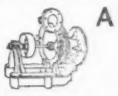

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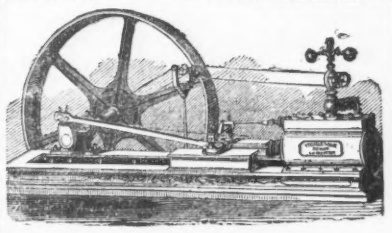

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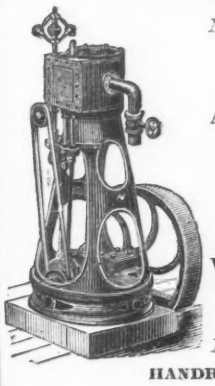

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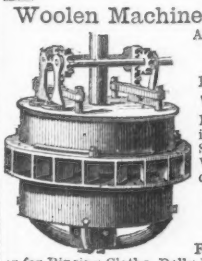

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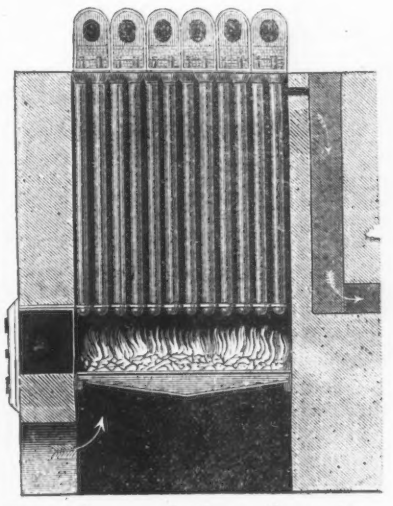

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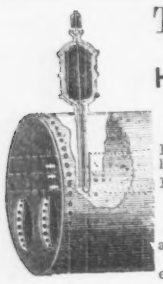

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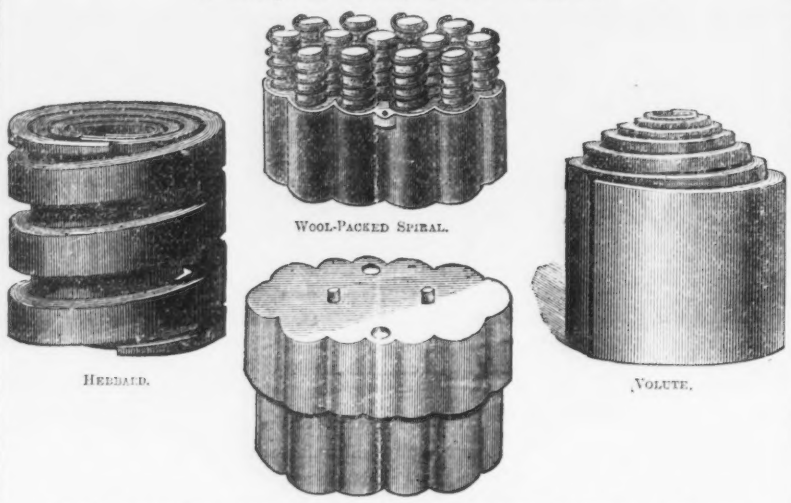

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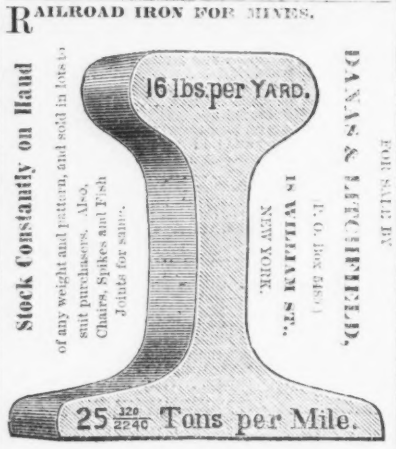

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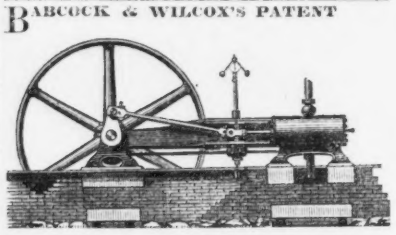

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